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A PERIODICAL OF SCHOOL ADMINISTRATION

VOLUME 113, NUMBER 2 AUGUST, 1946

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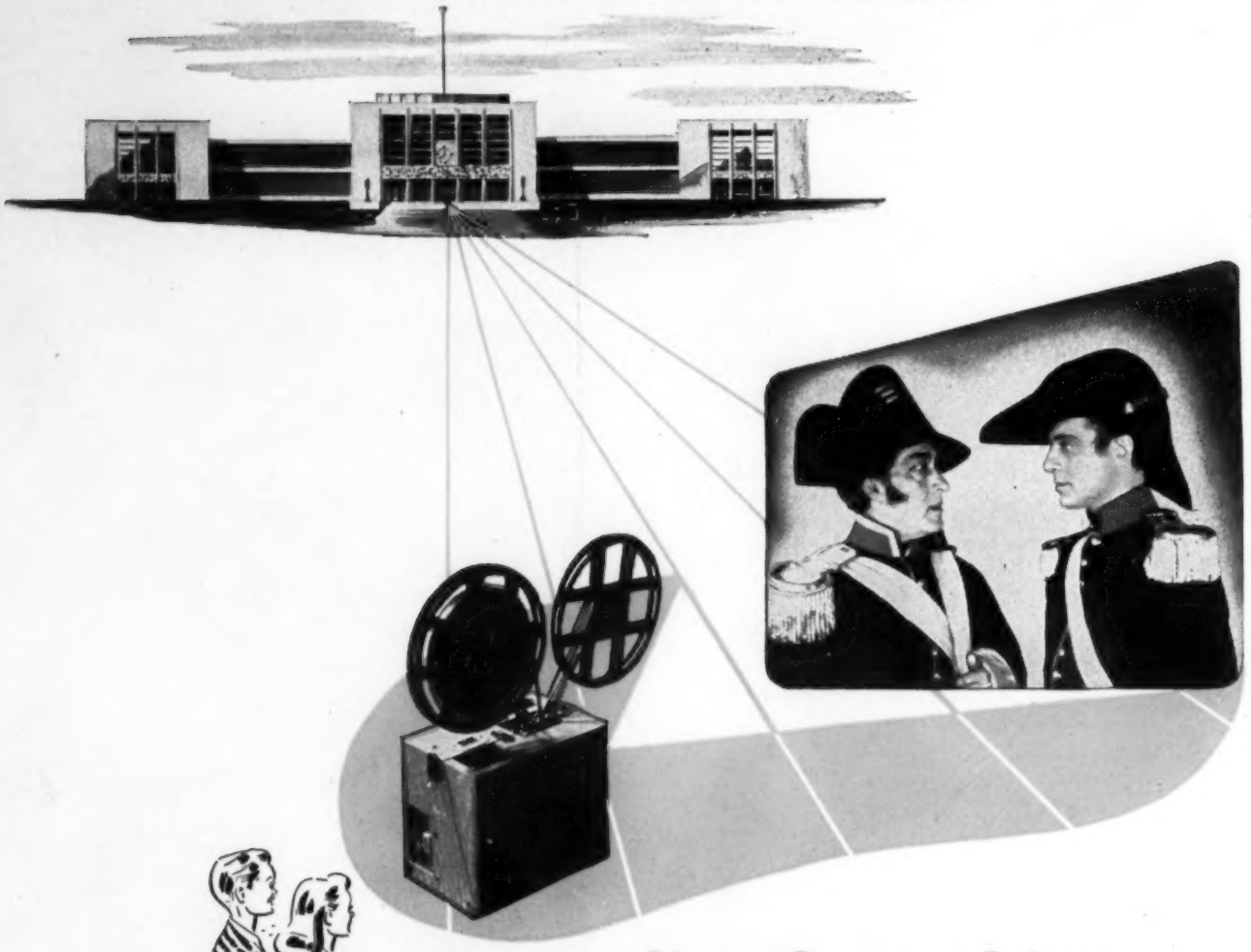

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The contents of this issue are listed in the "Education Index."
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What Price Quality

As a reason for a price increase a certain wit expressed it this way: "We could not improve our quality so we increased the price." There are legitimate reasons for price increases in this period of product demand, material shortages and high labor costs. Manufacturers and distributors of school goods are no exception and price increases are necessary to re-establish production, maintain quality and service, and develop new products for school requirements. Now many new traders are active in all markets and operating on the basis of black market procedures, pricing, and service. School administrators and school buyers may well keep in mind the old admonition *caveat emptor* in all their procurement efforts especially in dealing with all new sources of supply.

Policies of leading concerns on price and quality of their products is expressed in the following excerpt from a telegram of an outstanding manufacturer whose trade name is the buy-word for school shop tools:

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Continued dealing with your regular sources of supply, the responsible manufacturers and distributors of school goods, is safe buying procedure and your guarantee of quality and service at the lowest price. Refer to the advertising in the AMERICAN SCHOOL BOARD JOURNAL and then make use of the inquiry form for products and services, on page 71.

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THE AMERICAN
School Board Journal

Volume 113, No. 2 AUGUST, 1946 Subscription, $3.00 the Year

Defining Administrative Relationships in School Systems

*Roben J. Maaske**

Confusion and corollary misunderstandings frequently exist in school systems because administrative relationships and responsibilities are poorly or inadequately defined. It is the purpose of this article to suggest in concise manner both a general philosophy underlying good administration and a few guiding ideas for defining administrative relationships.

Principles of Administration

The administrative machinery for a city school system should be so organized and operated as to serve primarily the educational interests of the pupils. There should always be, however, due and fair consideration given to the interests of the parents, school patrons, taxpayers, and the entire school staff personnel.

There should, of necessity, be a clear understanding of the functions and duties of the various individuals and agencies constituting the total administrative organization, as well as a recognition of the basic need for working closely together in a spirit of mutual fairness toward the achievement of the objectives of the total educational program. This co-ordinated understanding is a first responsibility of the superintendent and the board of education.

The educational phases of the program should be administered in harmony with the best accepted principles and practices in leading school systems of the country. This should be accomplished under the stimulating leadership of the superintendent and his staff working closely in harmony with the special supervisors, principals, teachers, and other personnel in the system, under the general policies adopted by the school board.

There should be a clear understanding of the objectives of the school's educational program which should be co-operatively formulated, interpreted, and understood by the personnel of the system. In the administration of all phases of the instructional and curriculum-formulation program, these objectives must be kept carefully in the limelight.

The business and financial phases of the school system's operations should be administered in a businesslike and efficient manner to the end that the best possible program of education be provided within the limits of available resources. The superintendent should be qualified to exercise leadership in financial matters and, with the counsel of the board, develop plans and procedures designed to develop the confidence of the public in the soundness of the board's fiscal policies and business operations.

Closely allied with the administration of the educational and business phases of the school district, there should be a continuous program of public relations designed to interpret constructively the policies of the board, the educational program of the schools, the financial policies and problems of the district, and the procedures developed to insure an effective educational program. Only in this way can a school system avoid the sporadic outbursts of confused criticism which occasionally come up to plague normally well-conducted schools.

The public relations program cannot be thought of as the sole function of the superintendent, or of a public relations director, or several individuals alone but, ideally, is a function of every member of the school staff and the members of the board of education. The danger in the so-called public relations department, as such, is that the entire job of the public relations program is customarily reserved to this individual or department. Thus a situation is created where individual members of the staff feel themselves absolved of any responsibility, which is usually a very poor policy.

In any plan for the development of a sound public relations program, harmonious working relationships must be established with the various agencies and organizations in the city interested in the total program of youth welfare. Such relationships will enable the school system to take its proper place in educational leadership supported by the strength of the homes, churches, and other community and city agencies and organizations whose work bears upon the total program for the education and development through the schools of a fine potential, future manhood and womanhood, and citizenry.

General Function of the Board

In the general plan as outlined above, the school board plays the highly important function of serving as the legislative body of the system to decide upon the general policies and procedures for the government of the schools and to determine the fiscal policies and financial plans for the school system. Difficulties and disagreements most often arise within the membership of a board, when deliberations revolve around details of executive procedures which properly belong to the superintendent and his staff.

The board in carrying out its duties should be able to place reliance upon its superintendent to make definite recommendations, or in certain cases to make

*President, Eastern Oregon College, La Grande, Ore.

alternate recommendations, thoroughly thought through in perspective, and supported by data and an analysis of the pertinent facts and reasons for each recommendation. Once a policy has been intelligently discussed and decided upon, the board should be able to rely upon the superintendent to carry out that policy in the system, with the aid of his staff, using such details of procedure as his best judgment dictates.

The board should exercise its responsibility by developing various phases of its work through properly appointed committees, with the superintendent an ex-officio of each. On the whole, special committees rather than standing, permanent committees, will be found the most satisfactory *modus operandi* for effective administration. The board has the right to expect its superintendent to keep the members fully informed on matters which affect the long-time interests and plans, as well as the current problems and needs, of the school district.

The most effective school board will be one in which each member places mutual trust and confidence in the integrity and sincerity of the other members, as well as in their chosen superintendent. Normally, the number of board members for most efficient operation in school systems should not be less than five and not more than seven, or nine at most.

Functions of the Superintendent

In exercising stimulating and constructive leadership in a school system, it is the function of the superintendent, with the aid of his professional and business staff, to perform the following functions:

1. To exercise constructive, educational statesmanship in the total program of the school system
2. To initiate such plans and proposals for board discussion and action as from time to time are necessary for the continuous improvement of the educational program
3. To evaluate and appraise the operation of policies and procedures in the light of experience and to recommend to the board possible improvements
4. To utilize the services of his professional and business staff to assemble pertinent data basic to recommendations to be made to the board
5. To plan co-operatively with the board and school personnel a constructive public relations program for the purpose of keeping the public well informed concerning the program and needs of its schools
6. To encourage at all times suggestions, ideas, and constructive criticisms from principals, teachers, and others in the system for continuous improvements
7. To formulate regulations, subject to the board's approval, for the solution of problems of procedure in executing policies adopted by the board
8. To recommend personnel to the board for all professional vacancies, or changes in personnel, after carefully sifting suitable candidates under carefully organized professional plans and procedures
9. To direct the preparation of the budget under the general fiscal policies adopted by the board
10. To give leadership and guidance to the curriculum development program to achieve the objectives of the educational program of the school system
11. To delegate to the proper administrative and supervisory assistants, and other functionaries, specific duties and functions for which each will be held directly responsible.

Relationships of the Superintendent

With Central Staff. The superintendent should be one who inspires the confidence of his central staff members and who is recognized for his inherent fairness and qualities of leadership in the total educational program. The reciprocal relationships should be such as will encourage a frank discussion of problems, interchange of ideas, appraisal of working procedures, evaluation of outcomes, as well as the necessary agreement and understanding upon administrative practices and details of procedure in the system.

With the Principals. Each elementary and secondary school principal deserves to be regarded as the educational leader in his or her school and community. Educational plans and policies of administration should bring to him and his task every possible professional stimulation, assistance, and support through the supervisory and administrative staff members of the system. As principals are given dignity and status as leaders, they should likewise fully recognize and respect these inherently desirable human qualities in the teachers and other employees serving under their jurisdiction.

With the Teachers. The superintendent should be one who merits the confidence and support of the teachers of the system, by reason of his educational leadership and reputation for fairness. The superintendent should recognize the great contribution made by teachers and principals and bend his leadership, not only toward their continuous professional improvement but in creating for them the most desirable working conditions possible.

While, administratively, the teachers are under the jurisdiction of principals in the individual schools, the superintendent should maintain a professional contact with them through such avenues as general meetings of all teachers, the school bulletin, visitations to schools, and other similar opportunities. The personal and human values of his leadership will be enhanced to the extent he is not set off apart completely from the teachers of the system.

With Other Staff Members. The larger the school system, the more difficult it is for the superintendent to become other than seemingly far removed from such employees as the clerical, custodial, and other staff members in the schools. He should, however, maintain a personal interest and contact with this group as a matter of general policy. Attendance at their general meetings and otherwise the sincere display of interest in their work through his office will pay intrinsically valuable rewards in terms, not only of professional service, but in general public relations.

Summary

The administrator of a large city school system in the United States holds one of the most difficult posts in the entire field of public administration. He needs intelligence, stamina, broad professional training, patience and tact, unusual energy, a sense of fairness and leadership qualities of a high order.

The challenge and opportunities for service which the office offers are great. However, unless the many pitfalls along the way are intelligently and studiously avoided, the tenure is quite likely to be relatively short.

The Principles of Administrative Efficiency

The efficiency of the "administrative man" is evidenced, according to Prof. Herbert A. Simon, by the greatest accomplishment of administrative objectives set up for an organization. Writing in the 1946 winter issue of the "Public Administration Review,"[1] Mr. Simon says:

Now what are the factors that determine the level of efficiency which is achieved by an administrative organization? It is not possible to make an exhaustive list of these, but the principal categories can be enumerated. Perhaps the simplest method of approach is to consider the single member of the administrative organization and ask what the limits are to the quantity and quality of his output. These limits include (*a*) limits on his ability to perform and (*b*) limits on his ability to make correct decisions. To the extent that these limits are removed, the administrative organization approaches its goal of high efficiency. Two persons, given the same skills, the same objectives and values, the same knowledge and information, can rationally decide only upon the same course of action. Hence, administrative theory must be interested in the factors that will determine with what skills, values, and knowl-

[1] "Proverbs of Administration," pp. 64–65.

(Concluded on page 68)

Useful Opinions Expressed When —

Youth Looks at Education

H. H. Remmers[1] *and K. S. Davenport*[2]

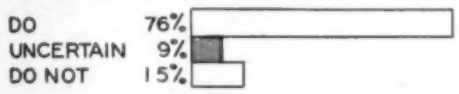
The Purdue Opinion Poll for Young People has completed its fourth year of investigation into the opinions of high school pupils on questions of educational, social, political, and economic importance. The manner in which the POPYP operates has been described elsewhere.[3]

From the beginning of the POPYP we have been impressed with the opinions of our young people and believe that their opinions are valuable tools for teaching. One specific area in which high school pupils are presumed to have a plausible basis of experience on which to base their opinions is that of education. For the pool undertaken in March, 1946, we devoted all questions to specific educational problems.

Modern educational philosophy has become increasingly concerned with the inculcation of democratic principles and practices. It is strongly held by the majority of democratic philosophers that youth cannot become democratic adults if they have been brought up under an autocratic regimen during childhood and adolescence. Consequently, we believed it important to find out not only what today's high school pupils thought of educational practices, but also how they thought that such practices were carried out in their respective schools.

The opinions of more than 6000 high school pupils are reported in this study. The pupils are from 13 states — Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, New York, North Dakota, Ohio, and Wisconsin.

1. Taking everything into consideration, do you or do you not like school?

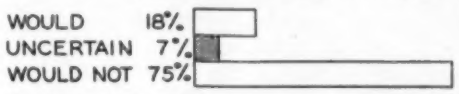


One mark of a good educational system is a satisfied group of pupils. On the results of this question, the over-all picture is encouraging. However, when one fourth of high school pupils are uncertain or definitely do not like school, there is clearly room for improvement.

It is doubtful if there has ever before been so much discussion of the lot and role of the teacher in America as there has been during the past few years. The war and the resulting upheaval of our educational system have focused public attention on the problems of the teacher. Perhaps the most attention has been paid to the alarming and constantly accelerating decrease of trained teaching personnel. One item related to both the alarm and the decrease may be seen in the replies to the next question.

2. Would you or would you not like to be a high school teacher?

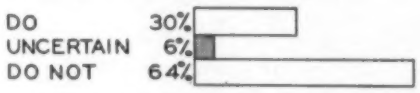
When three fourths of high school pupils say definitely that they would not like to be



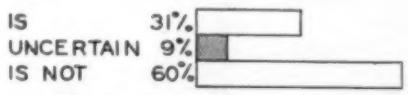
teachers and another 7 per cent are uncertain, the time has surely come for both the general public and the teaching profession to take stock of why the profession is not attractive to more of those who should be future teachers. If all of the 18 per cent remaining who said that they would like to be teachers would go ahead in training, and would be of the caliber necessary to make good teachers, then we would not have to worry; unfortunately this is wishful, for it is probably true that very few of these will be able to get the necessary training or have the necessary qualifications to be teachers. A strong recruitment program by the present teachers seems to be indicated as one necessary starting point. Such a recruitment program needs to be aided by a drive to make teaching more attractive in terms of salaries.

The next two items are concerned with interrelated problems: school discipline and teacher-pupil relationships.

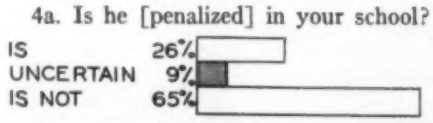
3. Some teachers make pupils do extra study assignments as punishment. Do you or do you not approve of this?



4. Is or is not the average pupil penalized for disagreeing with the statements of a teacher?



4a. Is he [penalized] in your school?



All educational psychologists agree that to make extra assignments serve as punishment for infractions of school rules is contrary to sound theory. It has no basis in the relevance of the punishment or relationship to the infraction. Still 30 per cent of these pupils do approve of this method. This may be caused by its familiarity, for too many teachers still use it.

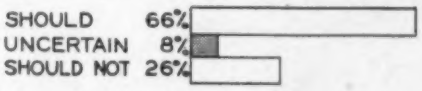
TABLE I. Is or Is Not the Average Pupil Penalized for Disagreeing With the Statements of a Teacher?

	Is	*Uncertain*	*Is not*
March, 1945	25%	11%	64%
March, 1946	31%	9%	60%

The question on penalties for disagreeing with the teacher was asked a year ago. Comparative results are given in Table I. Results show that there is a small but decided increase in belief that penalization follows disagreement. This may be caused by the juxtaposition of the second part of the question, that is, "Is a pupil in your school so penalized?" One may infer from the results of the two parts of the question that the pupil believes that his teachers are just a little bit better in this respect than are teachers in other schools.

The next question was also asked last year. Table II gives the comparative results.

5. Should or should not punishment of offenders against the school code or discipline be the job of the pupils through a pupil government?



5a. Is it [the job of a pupil government] in your school?

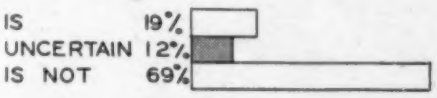


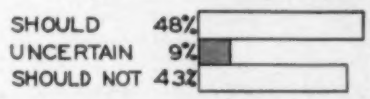
TABLE II. Should or Should Not Punishment of Offenders Against the School Code or Discipline Be the Job of the Pupils Through a Pupil Government?

	Should	*Uncertain*	*Should not*
March, 1945	66%	12%	22%
March, 1946	66%	8%	26%

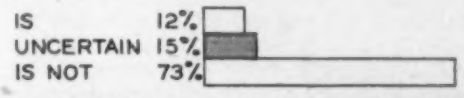
It is noteworthy that the "should" responses are exactly the same, but there has been a slight shift from being uncertain to being against pupil responsibility for discipline. Mental hygiene experts would generally approve of this practice as being one of the desirable aids toward building good school morale. The wide discrepancy between what pupils think should be the practice on this issue and what is the actual practice in their respective schools is food for thought.

A number of questions may well be grouped together, since they indicate some of the areas of possible school requirements.

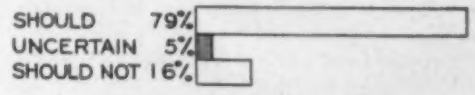
6. Should or should not work experience be a requirement for high school graduation?



6a. Is it [work experience] required in your school?



7. Should or should not the school be required to give a thorough physical examination to each pupil each year?



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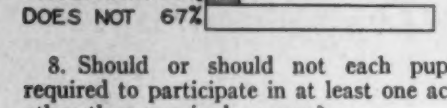
[1]Director, Division of Educational Reference, Purdue University, Lafayette, Ind.

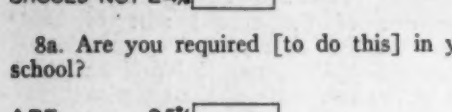
[2]Director of Research Relation With Industry, Purdue University.

[3]Remmers, H. H., "The Purdue Opinion Poll for Young People," *The Scientific Monthly*, Vol. LX, pp. 292–300, April, 1945.

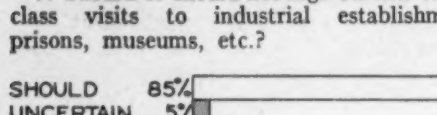
7a. Does your school [give such a physical examination]?



8. Should or should not each pupil be required to participate in at least one activity other than required courses?

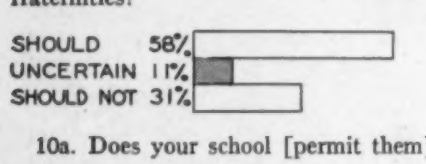


8a. Are you required [to do this] in your school?

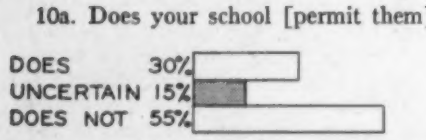


9. Should or should not high schools require class visits to industrial establishments, prisons, museums, etc.?

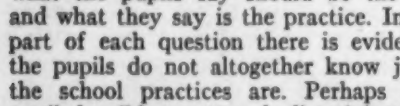
9a. Does your school [require such class visits]?



10. Should or should not high schools permit the organization of sororities and fraternities?



10a. Does your school [permit them]?



Again there is marked discrepancy between what the pupils say should be the practice and what they say is the practice. In the "a" part of each question there is evidence that the pupils do not altogether know just what the school practices are. Perhaps some of pupil bewilderment and dissatisfaction with school could be overcome if a clearer picture of what the school desires and requires could be given to each pupil.

One fourth of the pupils say that their schools require some nonacademic activity, while more than half say that such activity should be required. The actual program of solving this problem depends upon facilities, staff, time, and equipment — and many schools cannot now provide these.

Of the twelve items on this poll which ask questions both of general and specific practices, the only one which we believe gave answers the "wrong" way is the one dealing with fraternities and sororities. We recognize the social tendencies to congregate in groups; but in high school, by encouraging snobbery, such extracurricular clubs tend to become more harmful than useful. No doubt many educators will be pleased that more schools do not permit them than do.

A great majority of pupils do approve of off-campus educational ventures. During the war years it has been difficult, in some cases probably impossible, for schools to do much of this kind of education. With the easing of transportation and opening of peacetime business and cultural places, it would seem wise to build up this kind of educational activity.

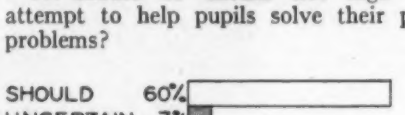
In January, 1945, we found that 79 per cent of pupils polled believed that the school should offer necessary medical services to its pupils; we see above that this identical percentage of pupils believe that each pupil should be given a thorough physical examination each year. It is good to note that more than a third of these pupils believe that an examination is required in their school. A physically ill or handicapped child cannot take full advantage of the educational fare set before him.

TABLE III. Should or Should Not Work Experience Be a Requirement for High School Graduation?

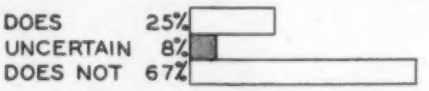
	Should	*Uncertain*	*Should not*
March, 1945	42%	13%	45%
March, 1946	48%	9%	43%

Table III gives the results of a question asked a year ago and again this time. Should this work be a part of regular schooling, required of all pupils, regardless of the type of study being taken? No one knows the answer. Very few, if any, schools require work experience, although some schools will recognize work done by giving "credit."

11. Should or should not high schools attempt to help pupils solve their personal problems?

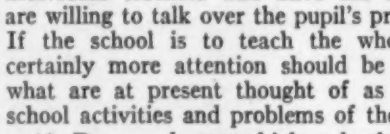


11a. Does your school [attempt to do so]?

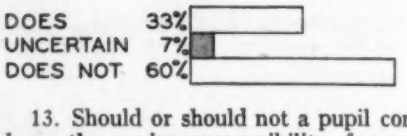


There are two remarkable results in question 11 and 11a: so few schools, *in the opinions of their pupils,* do help them to solve their personal problems, and only slightly more than half of the same pupils do want the schools to do this. Of course, the difference between 25 per cent and 60 per cent is enormous. Only one school (private) had a large majority that said that their school did give such personal counseling; a half dozen others had pupils evenly divided. Again the question must be asked, "Are such counseling services available and are the pupils unaware of it or have some pupils found individual teachers who have the time, and are willing to talk over the pupil's problems?" If the school is to teach the whole child, certainly more attention should be given to what are at present thought of as the non-school activities and problems of the child.

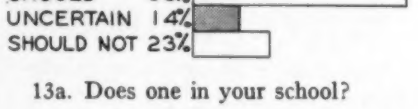
12. Do or do not high schools provide enough opportunities for pupil discussion of school problems?



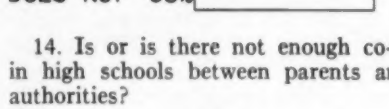
12a. Does your school [provide enough opportunities]?



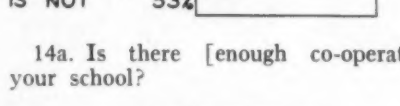
13. Should or should not a pupil committee have the major responsibility for arranging all convocations?



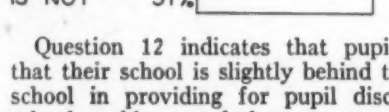
13a. Does one in your school?



14. Is or is there not enough co-operation in high schools between parents and school authorities?

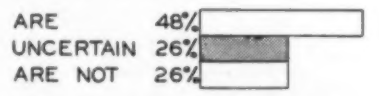


14a. Is there [enough co-operation] in your school?



Question 12 indicates that pupils believe that their school is slightly behind the typical school in providing for pupil discussion of school problems and that not enough opportunities for such discussion are given to pupils. Question 14 indicates in the opinion of the pupils that there is not enough parent-school co-operation and that the pupils' own school is typical of the total pattern. There is a wide divergence in what pupils believe should be the practice in arranging for convocations and what actually is the practice.

15. Are public school teachers underpaid or are they not?



15a. Are they [underpaid] in your school?

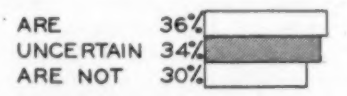


TABLE IV. Are Public School Teachers Underpaid or Are They Not?

	Are	*Uncertain*	*Are not*
March, 1944	42%	28%	30%
March, 1945	41%	30%	29%
March, 1946	48%	26%	26%

Table IV indicates that there has been a swing upward in the belief that teachers are underpaid. An interesting point is that there is a large amount of uncertainty. This is probably explained by the fact that teachers' salaries are not usually known in the community and consequently the pupils do not generally know what the salary scale may be. The widespread discussion of the present crisis in teaching which was mentioned earlier in this report may have had something to do with the rise in belief that teachers receive too low salaries. When questions 15 and 15a are taken together, one might draw the con-

clusion that pupils thought, "teachers in general are not overpaid, but in my school they are not as much underpaid as they are in other schools."

Opinion Differences Among States

New York, the state which has the highest average teacher salary in the United States, gave the highest percentage of pupils believing that teachers were underpaid, while Wisconsin pupils, whose teachers are only slightly higher paid than the median salary throughout the country, were least inclined to believe that teachers are underpaid. Wisconsin pupils were least inclined to believe that their own teachers were underpaid, while pupils from the New York schools were least inclined to believe that their own teachers were not underpaid. Each of the states had a large degree of uncertainty.

The widest divergencies among the states are on the question of pupil responsibility for maintaining discipline. Pupils in Ohio have only a bare majority agreeing that pupils should have the responsibility, while pupils in New York and Minnesota are strongly in favor of such action. Wisconsin pupils are much more convinced that they do have this responsibility now, while relatively few Illinois pupils say that they do.

Pupils in Indiana schools are least inclined to believe that the school should help pupils with their personal problems while Minnesota pupils were most desirous of such help. It is perhaps significant that the same Minnesota pupils, by their own estimate at least, are the ones who have the least personal counseling.

It should not be forgotten that, while the study of differences of opinion is instructive as well as interesting, the most important point is probably the relative closeness of agreement and disagreement of pupils in the different states. This also holds true for the discussion of the rural-urban grouping, the grade grouping, and the home environment grouping which are given in the following paragraphs.

Opinions of Rural Versus Urban Youth

In accordance with the accepted sociological definition of rural and urban groups, a school was classed as rural if a majority of its pupils live in communities under 2500 pupulation, and urban if otherwise. Although such classification allows considerable intermingling of rural and urban youth, reliable differences in opinion are found between the groups as defined, and it is reasonable to assume that such differences are indicative of still larger actual differences.

There is not much difference between these two groups. Pupils from rural schools and pupils from urban schools report in almost identical percentages that there is very little requirement for work experience for high school graduation, but rural school pupils are much more in favor of such a requirement than are pupils from urban schools. It would be interesting to see if these rural schools have shorter terms and what are the types of work experience that the pupils would judge acceptable for credit.

Pupils from both groups are similar in their evaluation of required extracurricular activities, but pupils from urban schools are much less certain that such requirements are desirable than are pupils from the rural schools. This might be due to the relatively greater number of opportunities for urban pupils in out-of-school work.

The problem of teachers' salaries definitely separates these two groups. Rural pupils are by no means sure that their teachers are underpaid — in fact, the plurality is for "not underpaid" — but urban pupils believe that their teachers (who are typically paid more than their rural compeers) are definitely underpaid. Again we note that there must be a feeling that the pupils' own school is just a little bit better than the others, for there is a definite drop in percentage from the general proposition that all teachers are underpaid to the specific one that "my" teachers are underpaid.

Opinions of Home Environment 1 vs. Home Environment 2

On the basis of "home environment," the primary variable of which is family income, pupils were as usual divided into two groups. The poorer group was designated as home environment 1 and the better as home environment 2.

It appears that the economic factors, of which family income is one, are reflected in a difference in opinion between the (relative) "haves" and "have nots." This is shown by the item on work experience, wherein the poorer group are much more in favor of its being a requirement of the high school — they could thus go to school and earn at the same time.

There is a slight trend for more of the poorer home environment pupils to want yearly physical examinations than do better environment pupils. Pupils in the poorer environment do not support the belief that teachers in general, or their own teachers, are underpaid to anything like the extent that the pupils in the better environment do. This would seem to indicate that teaching to these "have not" pupils might seem to be a somewhat more secure occupation than some with which they are acquainted, but they do not want to be teachers any more than do pupils from the "have" group.

While nearly three fourths of the poorer home environment group does like school, still this proportion is significantly less than that of pupils in the better home environment.

Opinions of Grades 9 and 10 vs. Grades 11 and 12

We have consistently found that pupils in grades 9 and 10 are likely to have a greater percentage of uncertain responses than pupils in grades 11 and 12. This poll is no exception. On 24 of the 27 items reported here, the uncertain responses for the lower grade pupils are relatively more frequent than for the upper grade pupils. This difference is particularly noticeable in the 12 items which ask for opinions as to what is the practice in the pupil's own school; there is not a single difference in this group that is not far larger than would be expected by chance alone. This consistency raises the question of whether somewhere there has not been a rather serious lack of explanation as to the practices within the school. After a couple of years within the school, a pupil begins to understand what is going on, but should it take that long for the new pupil to familiarize himself with his rights and duties?

Pupils in the lower grades are a little more optimistic about practices in general and in their own schools than are pupils in the upper grades; pupils in grades 9 and 10 have a greater belief than pupils in grades 11 and 12 that (*a*) high schools in general and their own particular high school provide enough opportunities for pupil discussion of school problems; (*b*) there is enough parent-school co-operation in high schools in general and in their own school; (*c*) teachers in general and their own teachers penalize a pupil for disagreeing; (*d*) teachers in general and their own teachers are not underpaid.

It does seem important to mention that pupils in grades 11 and 12 are more for the school's attempting to help with personal problems than are pupils in grades 9 and 10, but the pupils in the two lower grades are more of the opinion that such help is now being given than the pupils in the two upper grades.

GILBERT S. WILLEY
Superintendent-elect, Pueblo, Colo.

Dr. Willey, who assumed the office of superintendent of the combined school districts of Pueblo on July 1, is a graduate of the University of Illinois and received the degree of doctor of philosophy from the University of Wisconsin in 1926. He has been assistant superintendent of Denver schools in charge of elementary education.

Pueblo is a fast-growing community with a present population of 80,000 and with a conservatively predicted population of 100,000 within the next decade. The new superintendent has the challenging task of actually unifying the schools of the two districts which have just been merged.

THE NEW CITY LOOMS

The new city is on the way. But those who try to put new wine into old bottles will be doomed to futility and disappointment. The new city will not be built by timid tinkering with old models, but will be part of a new streamlined postwar civilization built on a modern model. In this era the ideals of democracy, liberty, equality, and justice will be spelled out in the daily lives of men and women. An economy expanding in what would have been thought fantastic a hundred years ago will make this possible.

To the city builders of the future we may cite again the words of the pioneer planner Burnham: "Make no small plans. They have no magic in them to stir men's blood." — CHARLES E. MERRIAM, National Resources Planning Board.

High School Principals Deserve More

R. J. Kryter[1]

In his article "Single Salary Schedules for Principals,"[2] H. T. Santee makes a case for paying the same salary to all principals in a given school system, regardless of whether they may be presiding over elementary or secondary schools. Mr. Santee asks and answers some pointed questions. However, he avoids other questions which are more pertinent, and which are the determining factors in the differentiation between elementary and secondary school principals' salaries. A further analysis of Mr. Santee's questions and answers, as well as an analysis of some questions he does *not* ask, is in order.

Mr. Santee says, "The current practice in most school systems today is to pay the principals of secondary schools considerably higher salaries than those paid to principals of elementary schools. For what reason? Because secondary pupils are worth more? Or because they are more difficult to educate?" Answering the first question, I am in general agreement with Mr. Santee, although even here my agreement is qualified by the fact that the more highly educated individual usually makes a greater contribution to society than his mediocre fellows. Answering the second question, again I agree with Mr. Santee as far as he has gone. Reams have been written regarding the difficulties in each field, but when all the factors are examined, there is probably little difference in the difficulty of the job to be done.

The wording of these two questions, however, infers that the principals are solely or primarily teachers. Mr. Santee's questions concern the results of teaching, and the difficulties of teaching. Actually, while the average principal will perform a certain amount of classroom teaching, his duties are more administrative than instructional. This emphasis on administrative duties is much more pronounced in secondary schools, where the administrative problems are more numerous, more extensive, more varied, and more complex.

Differences in Sizes of Schools

Right here is the point which Mr. Santee passes over lightly, namely, the wide difference in the duties of high school principals as compared with those of elementary school principals. First, there is the difference in the size of the unit to be administered. Mr. Santee's statistics in Table 1 are for cities of over 100,000 population, and in Table 2 are for cities of 30,000 to 100,000 population. In all such cities, there will be a considerable number of elementary schools of moderate size, and a few high schools of large size. Take Indianapolis as an example. In 1945, there were 39,313 students enrolled in 82 elementary schools, giving an average of 480 pupils per school. There were 15,280 students enrolled in 7 high schools, giving an average enrollment of 2180 students per school. Thus the average high school in Indianapolis is nearly five times as large as the average elementary school. Surely, Mr. Santee will recognize that with a five times increase in the size of the school to be administered, that the job is a bigger one, demanding a more competent individual, and justifying a higher salary.

A parallel case is the fact that small businesses are just as important to the country as large businesses, but the manager of a small concern is seldom paid as much as the manager of a large concern. For the large concern, the management problems are more varied and more complex, the amounts of money and the number of people involved are greater, and there is a correspondingly greater need for competent leadership, and a correspondingly greater reward to attract and hold that leadership. Exactly the same thing is true in the management of schools, and it should be recognized that a principal, particularly in a high school, is primarily a *manager*, not a teacher.

An Inherently More Difficult Job

But not only is the administration of a secondary school a larger job than the administration of an elementary school — it is also a more complicated and inherently a more difficult job. It requires greater versatility in the individual and a greater range of talents. The average elementary school is fairly homogeneous in make-up and operation. It is usually only partially departmentalized, and often it is hardly departmentalized at all. The same general subjects are treated in all grades, and are treated in the same fashion. Usually there is a reasonably close contact between teachers of the different grades.

The high school presents a very different picture. It is broken up into a series of separate departments, each highly specialized, and with each department head highly trained in his own specialty. There are entirely separate departments of languages, social studies, mathematics, science, industrial arts, and physical education. There is often comparatively little contact between these departments, and they tend to operate as separate entities, with each department head jealous of his own sphere. The introduction of shop courses often introduces an industrial-arts or a trade school type of educational method, entirely different from anything encountered in the average elementary school. Athletic activities introduce a new factor not found in the elementary school. On top of all this are the problems of extracurricular activities, such as debating clubs, dramatic groups, glee clubs and choral societies, science clubs, and hobby groups, all of which are a normal part of secondary school activities, but are seldom found in an elementary school.

A Higher Degree of Executive Ability Needed

To co-ordinate these different departments with their divergent views and contradictory requirements, and to lay down policies for the different types of educational approach and for the variety of activities which the secondary school involves, calls for a degree of educational insight and executive ability that are not required in administering the average elementary school. In the elementary school, with different teachers having similar problems and being in relatively close contact, the work of the principal involves rather simple functions of co-ordination. In the high school, divided into a number of separate groups operating with radically different methods and often at cross purposes, the work of the principal involves the most difficult of all human undertakings, namely, the providing of leadership to weld a heterogeneous group of people into a single unit working together toward a common goal. This difficult task requires tact, diplomacy, a wide range of knowledge, and that rare quality known as "executive ability." The greater difficulties of the task justify higher pay, and the greater rarity of persons having the desired qualifications, enable those persons to demand higher pay.

Thus I would say that Mr. Santee is completely wrong on Points 1 and 3 of his summary. Present practice results from the law of supply and demand — not from blind tradition. A higher salary is paid to secondary school principals for the simple reason that they have a bigger and more difficult job to do. It is just not true that "equal training and experience are necessary to administer schools on either level." Regarding Point 2 that "the single salary principle has been widely accepted for classroom teachers," equal salaries *should* be paid for work of equal difficulty, but principals cannot be compared in the same fashion as classroom teachers, and the conclusions reached in one case do not apply to the other. Regarding Item 6, it will always be true that the biggest and most important jobs will pay the highest salaries, and will attract the ablest individuals. Accordingly, it is only natural that the most capable elementary principals and the most competent department heads in high schools will aspire to high school principal-

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[1]President of the Board of School Trustees, Speedway, Ind.

[2]SCHOOL BOARD JOURNAL, May, 1946, p. 29.

ships, where they will not only be able to earn more, but where they will be able to be of a larger service to their communities, by influencing the lives of a larger number of people, and by applying their talents to more intricate problems.

In summary, "equal pay for equal work" is a sound principle, but in applying that principle, care must be taken to see that the work really is equal. The work of an average elementary school principal is not at all equal in difficulty, scope, or importance to the work of the average high school principal, and the existing differential in salaries is a proper recognition of that simple fact.

A Tip From The Military

Arthur G. Hoff[1]

There has been considerable discussion in recent years regarding the many alleged superior techniques of teaching which were developed by the armed forces. Considerable stress has been placed in these numerous articles and discussions on the applications of these techniques to instruction in our school systems and higher institutions. The validity of these claims will no doubt be tested in due time.

The armed forces have definitely made a contribution in the area of salaries which can be effectively applied to educational administration. The contribution referred to is that of paying salaries according to need. Members of the teaching profession can somewhat equitably be compared to commissioned officers up to the rank of major. Both the army and navy provide additional compensation for personnel with legitimate dependents. An allowance of $432 per year in addition to the regular salary schedule is given to commissioned officers up to the rank of major, and for noncommissioned men the supplementary dependent monthly pay plan provides $28 for the wife, $30 for the first child, and $20 for each additional child.

In educational administration two plans which provide more adequately for the needs of the individual teacher may be suggested. First, both men and women teachers may be allowed additional compensation for dependents and second, supplementary income may be provided for married men only.

Allowance According to Dependents

Additional compensation based upon the number of dependents may appear on first consideration as the more acceptable plan for both men and women, but some rather difficult problems appear in the administration of this pattern. First, it is often problematic to determine accurately the number of legal dependents which a woman teacher can claim. Some boards of education hesitate to take on the responsibility of being the investigating body for determining the number of dependents for which a teacher should be able to claim additional compensation. One way is to require that such dependents live with the teacher and be solely dependent upon her for support. In the case of men teachers, the number of dependents can be determined with facility as they are the wife and the children and therefore are, generally, entirely dependent upon the father for their support. Frequently, a woman teacher takes nephews, nieces, and the like, under her wing partially or wholly. Legally she is not responsible for their support. The same is true of a woman teacher's parents who are seldom wholly dependent, especially under the growing use of old-age pensions.

Second, paying additional remuneration to women because of dependents, even widows, tends to discriminate against married women teachers because they are not, as yet, considered more desirable than single women. On the other hand, they are considered less desirable by the majority of school boards to the extent of refusing them employment unless they are widows. Other things being equal, the single teacher will be employed in preference to a married or widowed woman, especially if a higher salary has to be paid to the woman with dependents. The public is not willing to pay a premium for women with dependents, but communities will do it for men.

A third obstacle in the administration of this policy is the difficulty of determining the equitable amount of additional compensation. The amounts allowed by the military for dependents, previously referred to, may be employed as a guide. It is evident in the use of this plan that the allowance becomes disproportionate for large families. One solution may be to provide a maximum dependency payment or to limit the number of dependents for which additional compensation can be received.

A fourth problem, which is delicate, now appears: Shall these allowances be discontinued when the dependency ceases to exist? Dependency may cease in case of death or when the child reaches legal age. At such time claims for income tax deductions are no longer permitted. Further ramifications of the problem continue to emerge, such as the length of time after cessation of dependency during which the payments should continue and the like.

Flat Allowance for Married Men[2]

Considering the difficulties in administering a plan which attempts to be completely equitable it may be well to investigate the practicability of allowing married men a dependency compensation which is definite in amount. A study of 337 men and 489 women teachers, 50 years of age or more and in active service, revealed that the median number of dependents for men was 2.76 and for women, .95 dependents. It was further found that only 4.8 per cent of the men had no dependents, but 51.3 per cent of the women had no dependents. These figures are valid because they agree almost exactly with those found in an earlier NEA study.[3] Because the average man teacher has approximately three times as many dependents as the average woman teacher, a definite need for additional compensation in order that he may have a comparable standard of living, is shown.

What Should the Amount Be?

In the study just quoted it was found that the average man teacher needed 50 per cent more income for minimum needs than the average woman teacher. The amounts were $1,550 and $1,089 per year for men and women respectively. When the amounts necessary to meet the normal cost of living were considered, the proportionate difference was slightly greater; namely, $2,143 for men and $1,236 for women. Assuming that the children remain as dependents for half of a man's active professional life, and his wife for the entire time, it may be fair to state that a man should receive an additional dependency compensation amounting to three fourths the difference between the respective costs of living, or approximately $800 per year. In actual practice we know that such an allowance is not made. The differential ranges from $200 to $600, with a median of $300, in the comparatively few school systems which employ this policy.

At the present time there is strong pressure all over the country to make the salaries of men and women the same under the disguise of the single salary schedule, and to prevent the adoption of dependency allowances unless women teachers get these benefits also. There needs to be vigilant study and action on this problem to prevent the gains in this area of dependency allowances from being lost and to make further gains in additional compensation for men above the basic salary schedule. This salary differential is mandatory in order to maintain as capable men as women in teaching positions.

[1] La Crosse, Wis.

[2] Hoff, Arthur G. "A Critical Study of Five Teacher Retirement Systems Operating in Wisconsin and Minnesota," Unpublished Doctoral Dissertation, 1938.

[3] N.E.A., *"The Teachers Economic Position,"* Research Bulletin No. 4, September, 1935, p. 180.

DR. BAGLEY DIES

Dr. William C. Bagley, formerly professor of education at Teachers College, New York, and recently editor of *School and Society*, died after a brief illness, on July 3, in his home in New York City.

Dr. Bagley was a native of Detroit, and began his teaching career in a one-room school in Michigan, in 1895. He was successively principal of a school at St. Louis, instructor in the Montana State Normal School, and superintendent of the Dillon, Mont. public schools. In 1908 he became professor of education at the University of Illinois, and in 1917 moved on to Teachers College. In 1940, he was retired with the title of Professor of Education Emeritus.

He was the author of numerous books and monographs, and was widely known for his constructive criticism of progressive education.

A Plan for Tomorrow

Lester B. Ball[1]

Starting in a period three years ago, the board of education of District 108 in Highland Park, Ill., organized a Commission on Post War Planning for the schools of the district. The work of this commission was carried on over a period of years involving the board, the faculty of the school, the school administration, and the survey staff of the department of education, University of Chicago. On the basis of the work done extensively over three years by these groups, a plan was set up by the district for its postwar organization and building program. Basically, the program involved changing the organization from one in which children attended the same school from kindergarten through eighth grade to one wherein children would go to grade schools in nursery through fifth grade and go to a newly proposed intermediate school in grades six, seven, and eight. This plan was thoroughly developed, including specific proposals for its development.

Inasmuch as this involved not only building but reorganization of the basic structure of the district, it was felt important that citizens of the community have a clear picture of the proposal advanced. Also, the situation was complicated by the fact that it would be necessary for the citizens to approve the proposed reorganization and acquire land for the new building at one election and then at a later date approve bonds for the erection of the building, should the first referendum

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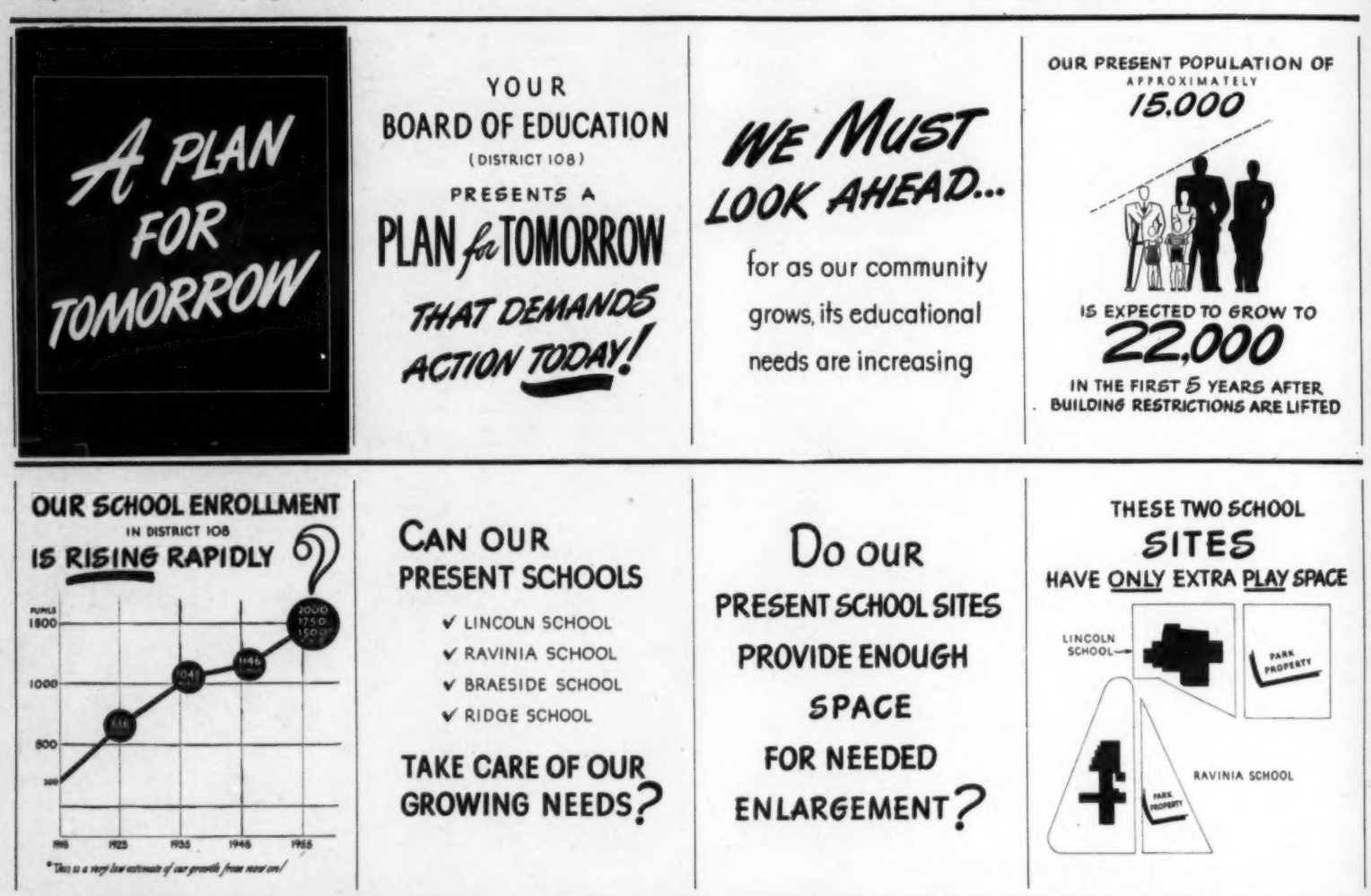
A PLAN FOR TOMORROW
YOUR BOARD OF EDUCATION (DISTRICT 108) PRESENTS A PLAN for TOMORROW THAT DEMANDS ACTION TODAY!
WE MUST LOOK AHEAD... for as our community grows, its educational needs are increasing
OUR PRESENT POPULATION OF APPROXIMATELY 15,000
IS EXPECTED TO GROW TO 22,000
IN THE FIRST 5 YEARS AFTER BUILDING RESTRICTIONS ARE LIFTED
OUR SCHOOL ENROLLMENT IN DISTRICT 108 IS RISING RAPIDLY
PUPILS
1800
1000
500
200
1925
1935
1946
1955
CAN OUR PRESENT SCHOOLS
✓ LINCOLN SCHOOL
✓ RAVINIA SCHOOL
✓ BRAESIDE SCHOOL
✓ RIDGE SCHOOL
TAKE CARE OF OUR GROWING NEEDS?
DO OUR PRESENT SCHOOL SITES PROVIDE ENOUGH SPACE FOR NEEDED ENLARGEMENT?
THESE TWO SCHOOL SITES HAVE ONLY EXTRA PLAY SPACE
LINCOLN SCHOOL
PARK PROPERTY
RAVINIA SCHOOL
THESE TWO SCHOOLS SITES ARE NOT BIG ENOUGH FOR NEEDED ENLARGEMENT
BRAESIDE SCHOOL
WE NEED THIS LOT
RIDGE SCHOOL
WE NEED THESE 3 ACRES
But EVEN WHEN ENLARGED THESE FOUR SCHOOLS CANNOT TAKE CARE OF OUR NEEDS IN THE NEXT 10 YEARS!
Here's why
SCHOOL DISTRICT 108
150 PUPILS
450 PUPILS
LINCOLN SCHOOL
RAVINIA SCHOOL
RIDGE SCHOOL
550 PUPILS
200 PUPILS
450 PUPILS
BRAESIDE SCHOOL
● Present capacity can be increased 10-12% by undesirable crowding
TO FIND A SOLUTION FOR THIS PROBLEM OF OUR GROWTH
AN EXHAUSTIVE STUDY
HAS BEEN CONDUCTED BY...
YOUR BOARD OF EDUCATION
IN COLLABORATION WITH
UNIVERSITY OF CHICAGO
RESEARCH STAFF... AND THE
FACULTY OF OUR SCHOOLS

The booklet "A Plan for Tomorrow" was printed in blue ink on pages 8 x 11 inches in size. The informality of the hand lettering, combined with the presentation of a single idea on each page, made the booklet convincing.

AS A RESULT OF THIS STUDY-

YOUR BOARD OF EDUCATION
RECOMMENDS

1. Modernizing of our present schools for the benefit of children through the 5th grade
2. Building a *new* centrally located INTERMEDIATE SCHOOL for all the upper-grade children (grades 6,7 and 8) in our school district

YOUR BOARD OF EDUCATION RECOMMENDS

SEPARATING THE YOUNGER AND OLDER CHILDREN

1 *Because* this is generally considered *better* educational practice

2 *Because* this will give our younger children *more room* in buildings prepared, equipped and staffed for *their needs*

YOUR BOARD OF EDUCATION RECOMMENDS

A CENTRALLY LOCATED INTERMEDIATE SCHOOL

1 Because to provide the special rooms and equipment that older children need it is *less expensive* when done at *One School* rather than four

2 Because we can offer the older children a *much fuller program* in *One Building*

For example...

AN INTERMEDIATE SCHOOL
would give the older children-

- ✓ LARGE DIVIDED GYM
  FOR THE FIRST TIME GIRLS WOULD HAVE THEIR OWN GYM SUPERVISED BY WOMEN TEACHERS
- ✓ ADEQUATE LIBRARY
- ✓ CAFETERIA
- ✓ HOME ECONOMICS WORK-ROOMS
- ✓ DAYLIGHT HANDCRAFT SHOPS
- ✓ VISUAL EDUCATION ROOMS
- ✓ BAND ROOM
- ✓ ADEQUATE RECREATION SPACE

INTERMEDIATE SCHOOLS

have been tried, tested and proved to work *best* for older children

- IN EVANSTON
- IN WILMETTE
- IN WINNETKA
- IN GLENCOE

...they are part of the accepted practice in teaching throughout the U.S.

A NEW INTERMEDIATE SCHOOL
plus
MODERNIZING
OUR PRESENT SCHOOLS

WILL COST 25% LESS

than if we try to solve our problem by just continuing to build on additions to present buildings

A NEW INTERMEDIATE SCHOOL
PLUS
MODERNIZING
OUR PRESENT SCHOOL

WILL BENEFIT THE CHILDREN OF THE ENTIRE DISTRICT

...this *can't* be done by merely adding a new grade school in *only one* section of the district

We can't modernize our present schools nor build the new intermediate school for a year or two...

BUT-

WE MUST BUY THE SITE WE NEED

NOW

Because...

THE KIND OF CENTRALLY LOCATED PROPERTY WE WANT IS BEING BOUGHT UP FOR HOMES

PRICES OF VACANT PROPERTY ARE GOING UP AND UP! AUTHORITIES ESTIMATE THAT THEY WILL GO UP

1/3 MORE

IN THE TWO YEARS BEFORE WE CAN BUILD

...SO WE MUST ACT NOW!

HERE
IS THE SITE
RECOMMENDED FOR THE
NEW INTERMEDIATE SCHOOL
BY
YOUR BOARD OF EDUCATION
AND THE
UNIVERSITY OF CHICAGO SURVEY STAFF

1 On Edgewood Road, just west of the Moseley Subdivision
2 Centrally located for the WHOLE school district... ideal for bus transportation which will be provided!
3 Contains 10 acres...the space we need!
4 High ground, ideally suited for school needs!

★ The Highland Park City Plan provides for the extension of Edgewood Road to Ridge Road

WHAT IS THE NEXT STEP ?

ACCORDING TO LAW---

YOUR BOARD OF EDUCATION

- ✓ Must receive a majority vote in favor of the location of the proposed site for an Intermediate School
- ✓ Must receive a majority vote for the issuance of $58,000 of bonds for the purchase of the new site and the site additions to the present schools

LATER BEFORE BUILDING CAN START-

Your Board of Education must submit to the voters the complete proposition for building the Intermediate School and remodelling present schools...and receive a majority vote for the issuance of the necessary bonds

...and bear in mind that

THIS $58,000 BOND ISSUE

WILL NOT INCREASE YOUR TAXES

Because – these bonds will be paid AFTER the current bonds are retired

A SPECIAL ELECTION
WILL BE HELD
SATURDAY, MAY 25TH 1946
12 NOON TO 7 P. M.

-ON THE PROPOSITION OF APPROVAL OF

1 The Site for the Intermediate School
2 A Bond Issue of $58,000 for the
- ✓ purchase of the NEW school site
- ✓ purchase of 3 additional acres for Ridge School
- ✓ purchase of 2 additional lots for Braeside School

THE BOARD OF EDUCATION
DISTRICT 108
RECOMMENDS THAT YOU-

VOTE- "YES"

to provide adequate school facilities for all the children in our district for many years to come

be successful. The situation was further complicated by the fact that it would be necessary to ask the citizens to approve bonds for purchasing additional space at two presently existing elementary schools. In other words a complicated situation involving several proposals had to be presented as clearly as possible.

With this in mind, the board of education authorized the superintendent to prepare newsletters and other materials which would explain the proposals to the community. The superintendent was also authorized to hold community meetings in each of the schools to explain the ideas. Speakers were to be furnished to any organizations able to give time in their programs to this problem. In order to carry out the wishes of the board, a PTA Community Advisory Committee was set up. This committee consisted of interested and outstanding citizens in all parts of the city who were willing to give freely of their time in advising the superintendent on the kinds of meetings and materials, etc., that would best explain the program to the entire community. This committee functioned actively over a period of several months in organizing the program of interpretation.

In order that the most complete understanding could be attained, a citizen of the community, who is by profession in the field of advertising, offered his services to the superintendent and to the committee in preparing materials both for the public meetings to be held and for the booklets to be distributed. After conferences with the superintendent and committee and based upon the ideas developed in these meetings, this public spirited citizen prepared in rough form large charts which could be used in the public meetings. Also at the suggestion of this citizen it was decided that after the charts had served their purpose in the public meetings, they would be photographed, planographed, and distributed to each resident of the school district as a final means of interpreting the program as proposed and recommended by the board of education. By doing this the school was able to prepare materials both for the public meetings and for general distribution at a lower cost than would have been possible had separate materials been developed for these purposes. The result of this action was the development of the booklet entitled "A Plan for Tomorrow," published by the board of education, District 108, Highland Park, Ill.

As a result of the work outlined, and as a result of the favorable impression made by the booklet upon the community, the citizens overwhelmingly approved the proposal exactly as set up by the board of education and outlined in the booklet "A Plan for Tomorrow." Thus, the board of education is now proceeding with plans for its new intermediate school, knowing that the proposed organization has the approval of the community, and knowing that the land and money for additions will be available.

In the next phase, the board of education will continue to use the services of the PTA Advisory Committee. Also in the next phase, which will be the presentation of the building plans both for a new building and modernization of the old buildings, it will again organize community meetings, publish newsletters and booklets of explanation as it did in the previous program of explanation. Also, the board of education will continue to ask citizens, such as men in the field of advertising, to give of their time and energy for the good of the community. It has been discovered that these citizens with specialized abilities are more than willing to help their schools in any way they can.

School boards can be successful in these programs if, as the expanding needs of the postwar years are worked out, they will plan carefully in advance with experts and with the faculties of the schools involved, and if they will interpret clearly to the community exactly what the needs of the school are and the reasons back of these needs. If we interest our citizens and get them to participate in thinking with the board of education, we shall be successful in meeting the ever expanding needs of growing communities.

Milwaukee's Successful Engineer-Janitors' School

William Holubowicz

A successful in-service training program for engineer-janitors, which has been operating for five years in the Milwaukee (Wis.) school system, has proved to be a powerful factor in increasing efficiency and cutting of costs in the general operation of school plants throughout the city. Myron L. Hineline, supervising engineer-janitor, along with a committee of plant operation employees, has been responsible for arranging the program.

In planning its activities for training, the committee has used as a basis the conclusion that school plants, sometimes running into three or four million dollars in value, need high class men with adequate experience for maintaining, operating, and servicing the buildings and their equipment.

The in-service training school is scheduled yearly during the first week after school is out in June. All engineer-janitors are required to attend sessions on three consecutive days. The various phases of the housekeeping, engineering, and maintenance work involved in modern school engineer-janitor activities are emphasized. The classes are divided into discussion and lecture-demonstration sessions.

Local Instructors Used

Though the past four years' school sessions were successful, the guest instructors from other cities, of necessity, spoke in generalities about modern methods. This year's sessions were more practical as all the men teaching were drawn from the Milwaukee group and consequently were familiar with the local problems which most of them had met in their own experience.

The in-service training program places emphasis upon the necessity for originating some systematic procedure through which all of the necessary tasks connected with operating, servicing, and maintaining a particular school building may be performed without confusion or misunderstanding on the part of any of the staff assistants who work under the engineer-janitor's supervision or direction. One of the principal reasons indicated by Mr. Hineline for such a necessity is the possibility of the quick substitution of new men caused by either promotion, transfer, or illness. The substitute should be familiar with the routine and be able to go ahead without being confused or causing serious inconvenience to the teaching staff or educational activities.

The Procedure Followed

In determining the procedure to follow for setting up a schedule, he pointed out, the training program accentuates the prerequisites to planning: (*a*) inventory of the equipment in the building which is to be cleaned thoroughly, and the time needed for cleaning; (*b*) the number of locker rooms, lunchrooms, classrooms, corridors, stairways, and special rooms, the time needed for their cleaning and the time of day when they can be cleaned; (*c*) the amount of equipment such as motors, fans, pumps, etc., and the time spent in servicing them daily; (*d*) the special work to be done during each season of the year. Provision is made in planning work schedules for the engineers and janitors and part-time help so that the spring, the fall, and December, January, and February periods, which have different needs, are efficiently set up. Though emphasis is placed on the need for preparing a work schedule, care is taken to show that the plan must be suitable for a particular building. Typical schedules for various schools as to size and equipment are discussed to bring out these points. The schedules are so set up as to provide for the perpetual care of the school plant. Night men have work planned to keep the building in constantly good condition throughout the year rather than wait for vacation periods to do the work.

Value of the Program

Evidence of results has been accruing over the period covered by the in-service training. Mr. Hineline points out numerous instances demonstrating the practical value of such a program.

Attributable to the training program, at least in part, as an example, is the decrease in the amount of coal used in the past five years.

In 1941–42, a total of 33,568 tons were used during 6680 degree days. In 1942–43, only 28,753 tons were used in 7551 degree days. In 1943–44, just 27,886 tons were used in 7202 degree days. In 1944–45, the coal consumption was 25,475 tons in 7120 degree days. The statistics show that tonnage was saved even though degree days increased over the period.

The course has proved so popular that a definite demand has arisen for a specialty course in engineering-plant operations. Mr. Hineline has made arrangements to teach such a class during an 11-week course of 22 sessions at the Milwaukee Vocational School. This course will be initiated in the fall of this year, on the men's own time.

All the returning servicemen have elected to participate in the classes. Upon being advised of the course, over 50 per cent of the men in the system enrolled. Mr. Hineline, who will be in charge, is striving to prepare the men in the system for examinations leading to engineer's ratings. The idea is to promote men from within the system into the top positions.

Something New in School Health

*Frank L. Williams, Ed.D.**

For many years schools and school people have been interested in the health of the school child. Considerable progress has been made since the days of the classroom water bucket and the common drinking cup, but there is still much to be desired in the development of a well-rounded school health program that will secure tangible results. Too often schools have made an honest effort toward improvement, but limited knowledge and facilities have confined the efforts to some individual and isolated phases of what should have been a complete program. For example, much has been done in the field of the control of some of the communicable diseases. Sporadic interest has been shown in school dental programs, general physical examinations, summer or preschool roundups, the teaching of physical education, and many other divisions of the general field. Not often, however, has there been a widespread and concerted movement toward a complete program of child development and school health until the present time.

It is a well-established fact that a school health program alone will not cover sufficient territory, for the home, the school, the Church, and many other social organizations and agencies also play their respective parts in the complete development of the child, physically, psychologically, emotionally, and mentally. By a recognition of all the factors that enter into child growth, however, and by a combined effort, the school can do a much better job than formerly in assisting the child to a well-balanced development.

Studies have shown that there is a positive correlation between nutrition and mental ability and also between physical growth and achievement in school. Some authorities state that the reading curve follows the maturity curve. It is a well-known fact that readinesses play an important part in a child's early learning processes. Thus it is evident that a child develops as a complete organism and not by isolated parts.

Before proper learning can take place, therefore, it is necessary that the influence of several agencies be brought together in a connected effort toward complete development. In most cases the school is the logical unit and is in the best position to provide the necessary leadership. The school should, by testing, observation, and cumulative records, determine the present status of the child. All schools should make an honest effort in the direction of supplying the individual needs of each child, such as curriculum adjustment, proper grade placement, a prophylactic or health producing environment, sufficient rest, and conditions conducive to emotional stability. In some cases it is necessary to provide a part of the total dietary needs in the form of the noonday hot lunch or in the midmorning milk supplement. With the school in the lead the home can be educated to a better understanding and all other contributory agencies can be assisted toward greater shares in the total progress of the child.

A feeling that too many schools for too long a time have misplaced the emphasis by confining their efforts to searching out defects and health problems rather than seeking the causes of such defects in order to provide a preventive program has led to a change of effort. At the present time physical defects are occurring faster than doctors and dentists can correct them. If progress is to be made the major effort must be toward prevention.

Defects Among School Children

A large scale investigation has recently been conducted by Dr. D. B. Harmon, director of the school services, division of the Texas State Department of Health, and his staff to determine just what the conditions are among Texas school children in order to have information upon which to base intensive studies of children's difficulties and their causes. More than 160,000 children in more than 4000 classrooms were screened by scientific methods. Through medical, dental, visual, nutritional, psychological, and other scientific studies it was revealed that high percentages of the children were suffering from many handicaps.

Final tabulation of the screening showed that 71.3 per cent of the children were suffering from nutritional deficiencies, 59 per cent from refractive eye problems, and 92 per cent from dental caries, besides other deficiencies listed in Table I. It will be noted that practically all the children had nutritional, visual, or dental difficulties and it is likely that most of them had more than one of these defects.

Table II shows, aside from the fact of a large number of refractive eye problems, that the incidence of these difficulties increases with the advancing school program from grade one to grade five. This finding is in accordance with other scientific investigations which have shown that physical defects increase in number as children advance in their schoolwork.[1]

Are we, then, to conclude that the school is instrumental in increasing the number and the degree of the physical defects of the pupils who attend the school? Facts seem to point in that direction.

Assuming that the school is deficient in providing a prophylactic environment, Dr. Harmon set about to make certain adjustments in the classroom as a means of reducing the number of the defects found. Results of his first experiment, reported in his own words, are gratifying and include the following:

> Immediately before these changes were made, 71.3 per cent of the children had nutritional disorders of various types; 53.3 per cent had refractive eye difficulties; 39.5 per cent of them had difficulties of seeing not related to refraction; and 75.2 per cent of them showed signs of chronic infection. . . . Certain minor adjustments were made in the seating and lighting and some other physical factors in the school so as to reduce stresses imposed on the children that were not in keeping with their particular levels of development. Six months after these changes were made the children were examined again. As a result of the changes . . . instead of 71.3 per cent of the children having nutritional difficulties, the number had been reduced to 39.5 per cent, a reduction of almost 50 per cent without curative feeding or special therapeutic procedures. Instead of 53.3 per cent of the children needing glasses, there were but 22.8 per cent showing refractive eye disorders, a reduction of 65 per cent. The 39.5 per cent who had difficulties not related to needing glasses had been cut down to only 0.7 per cent. In addition, there had been 43.3 per cent reduction in the number of the children suffering from chronic infection.

These findings are of considerable importance and have attracted widespread attention.

TABLE I. Physical and Medical Findings in Anglo-American Elementary School Children, November, 1942

(Without reference to 'clinical degree')

	Per cent of total children having all degrees of difficulties or signs	
1. Nutrition deficiencies	71.3	(42.8 severe)
2. Posture defects	30.2	
3. Refractive eye difficulties	59.0	
4. Eye difficulties, other than refractive	39.5	
5. Combined signs of ear, nose and/or throat involvement (used as a crude index of chronic infection)	75.2	(61.6 have two or more signs)
6. Noninfectious skin difficulties	15.8	
7. Signs of possible chronic fatigue	20.9	
8. Endocrine disturbances	5.2	
9. Nontuberculous pulmonary difficulties	3.2	
10. Dental caries	92.0	
11. Dental malocclusion	58.2	
SUMMARY		
Children needing medical attention	58.7	(and 23.3 more with subclinical involvement)
Children needing visual attention	59.0	
Children needing dental attention	92.0	

Studies made in other states show comparable data, as do studies made in England and in other foreign countries where children have similar backgrounds and educational opportunities.

The article in the July JOURNAL, "New Light on School Lighting," by R. L. Biesele, Jr., explains in detail one of the important environ-

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[1]Bennett, Henry Eastman, *School Posture and Seating* (New York: Ginn and Company), pp. 40, 62, 63, 95.

mental school techniques employed, that of classroom lighting, and the physical results obtained.

Environmental control, however, is not the whole story. A complete school health and child development program is now underway in Texas as a combined movement of the State Health Department, the State Department of Education, and the Texas Interprofessional Commission on Child Development. The plan is designed to promote the whole-child development in the school as well as to correlate the efforts of the school with other agencies. Seven points of endeavor have been established for the long-time porgram. They are:

1. Control of communicable diseases by daily observation
2. Minimizing noncommunicable health problems and defects
3. Definition and provision of minimum health essentials in the classroom environments of Texas schools
4. The provision of adequate activity programs for children in grades 1 through 12 to promote their physical fitness for educational tasks and for total development
5. The inclusion of sufficient education content in the elementary curriculum to promote insight in personal hygiene and local health hazards
6. The inclusion of adequate nutrition supervision and instruction in the elementary and seconday curriculum
7. The integration of school health programs with the community public health programs in such a way that they not only connect with the life of the school child but provide continuity with what has gone on in the preschool period in well child conferences

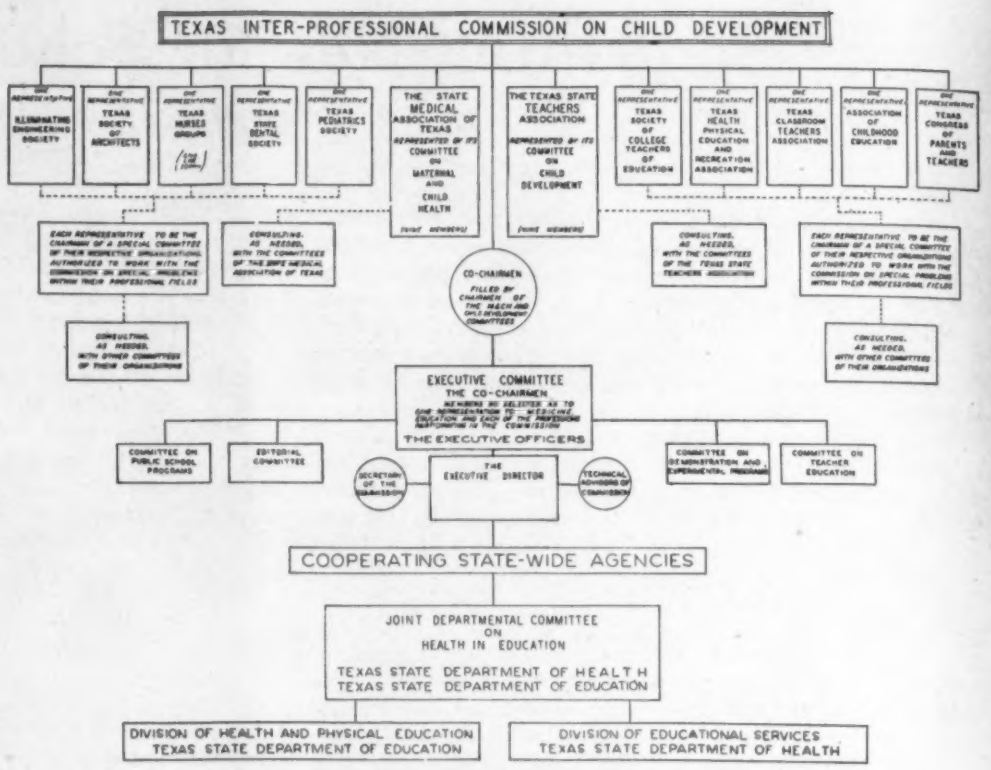

TEXAS INTER-PROFESSIONAL COMMISSION ON CHILD DEVELOPMENT
THE STATE MEDICAL ASSOCIATION OF TEXAS
COMMITTEE ON MATERNAL AND CHILD HEALTH
THE TEXAS STATE TEACHERS ASSOCIATION
COMMITTEE ON CHILD DEVELOPMENT
CO-CHAIRMEN
EXECUTIVE COMMITTEE
THE CO-CHAIRMEN
THE EXECUTIVE OFFICERS
THE EXECUTIVE DIRECTOR
COOPERATING STATE-WIDE AGENCIES
JOINT DEPARTMENTAL COMMITTEE ON HEALTH IN EDUCATION
TEXAS STATE DEPARTMENT OF HEALTH
TEXAS STATE DEPARTMENT OF EDUCATION
DIVISION OF HEALTH AND PHYSICAL EDUCATION TEXAS STATE DEPARTMENT OF EDUCATION
DIVISION OF EDUCATIONAL SERVICES TEXAS STATE DEPARTMENT OF HEALTH

Chart 1. Schematic Organization of the Texas Interprofessional Commission on Child Development.

The Texas Interprofessional Commission on Child Development

Another factor that has long retarded the progress of a sound and complete school health program is that of the multiplicity of unrelated committees, associations, and special interests that have been vitally interested but haphazard and nonco-operative in their efforts. In order to utilize all resources, to make certain that principles and procedures used in the program are acceptable to all professions concerned with childhood, and in order to secure a complete understanding and exchange of ideas between education and the various medical and specialized services, the Texas Interprofessional Commission on Child Development was created. In 1940 the Texas State Teachers Association and the State Medical Association of Texas collaborated in furnishing leadership for the organization and when plans and recommendations for the formation of the Commission were submitted to the various professional organizations and associations they were readily accepted by the following groups:

Texas State Teachers Association
State Medical Association of Texas
Texas Pediatric Society
Texas Classroom Teachers Association
Texas Association of Childhood Education
Texas Health, Physical Education, and Recreation Association
Texas State Dental Society
Texas Society of College Teachers of Education
Texas Graduate Nurses Association
Texas League of Nursing Education
State Organization of Public Health Nursing
Texas Neurological Society
Texas Congress of Parents and Teachers
Illuminating Engineering Society, Southwestern Section
Texas Society of Architects
Texas Association of School Administrators

The director of the school services, division of the Texas State Department of Health, is executive director of the Commission and serves as co-ordinator of its activities. A complete analysis of the organizational scheme is shown in Chart 1. Annual meetings are held for the purpose of conducting the larger affairs of the entire program and numerous conferences of special representative committees are held more frequently. Some activities of the Interprofessional Commission are:

1. The development of recommended standards for a basic child health program for the state covering all levels of child development.
2. The development of a basic set of standards for health programs for school children, on which the health education and health service activities of the Texas State Department of Health and the Texas State Department of Education are based, and which has been adopted by the State Conference of School Administrators as the official program for their schools.
3. The Commission has maintained a continuous program of graduate workshops in child development training for teachers and school administrators in a number of colleges and universities in the state.
4. Studies of the effect of the physical environment of the school on the growth, health, and development of children; studies of environment factors producing conditioned nutritional deficiencies in Texas children; studies of the relation of certain dental defects in children to other health and development problems, and the like.
5. The recent establishment on the campus of Southern Methodist University of a Child Development Center for the purpose of conducting research studies, furnishing schools with engineering consultation on classroom environment, furnishing engineering consultation on natural and artificial lighting, teacher education in child development, and providing educational services to the public schools.

TABLE II. Comparison of Refractive Eye Problems, May, 1943 Examinations of Anglo-American Children with Those Found on November, 1942, Examinations

	Per cent cases on Nov. exams.	*Per cent cases on May exams.*	*Per cent cases showing on both exams.*	*Per cent new cases on May exams.*	*Per cent reduction in Nov. cases*	*Per cent change in total cases*
Entire School	53.3	22.8	18.6	4.2	—65.0	—57.1
Grade 1A	30.7	23.0	7.6	15.3	—75.0	—25.0
Grade 1B	35.7	21.4	21.4	0.0	—40.0	—40.0
Grade 2A	38.4	23.0	23.0	0.0	—40.0	—40.0
Grade 2B	46.1	23.0	23.0	0.0	—50.0	—50.0
Grade 3A	58.3	16.6	8.3	8.3	—85.7	—71.4
Grade 3B	61.5	23.0	15.3	7.6	—75.0	—62.5
Grade 4A	66.6	20.0	20.0	0.0	—70.0	—70.0
Grade 4B	72.7	27.2	27.2	0.0	—62.5	—62.5
Grade 5A	71.4	28.5	21.4	7.1	—70.0	—60.0

Fig. 1. An untreated room showing extreme light glare.

The Mexia Program

In order to test the practicability of the various theories in operation in an average school situation, where the budget was limited, where an old building, sound but in need of repairs and improvement, was available, and where a co-operative school personnel existed, an experimental and demonstration center for the state was established at Mexia (Me-hay'-a), Tex.

So far the program at Mexia includes three of the seven points of the state program. They are the control of communicable diseases by daily observation, minimizing noncommunicable health problems and defects, and defining and providing for minimum health essentials in the classroom environment. Other areas will be included with the complete development of the program.

The process of controlling communicable diseases by daily observation is simply the process of constant watchfulness on the part of the teacher to see that children who are ill do not remain in the classroom. Teachers can be quickly trained to discover unnatural behavior on the part of children and by excluding such cases the individuals are benefited by the services of a physician while, at the same time, new cases are kept at a minimum.

Minimizing noncommunicable health problems and defects is effected by a training program designed to enable teachers to screen out cases of malnutrition, visual difficulties, problems of organic maturation, etc. When such cases are found they are referred to specialists for diagnosis and treatment. Co-operation is also had with local public health agencies and units involved in child development.

Fig. 2. An untreated room showing light contrasts and distorted pupil positions.

Fig. 3. A reconditioned room showing even light distribution and improved work positions.

Better than screening out the defectives, however, is the prevention of the defects in the first place. To that end, environmental control, or an improved classroom, constitutes a vital factor. The accompanying photographs of classroom conditions illustrate the situation. Figure 1 shows an extreme case of sun glare with its attendant ills. Pupils are seen holding their hands before their faces to protect their eyes, turning sideways in the seats to avoid the glare, bending over the desks in order to get closer to their work and compensate for too little light in some parts of the room, and other unnatural positions which they are forced to assume in seeking bodily comfort while engaged in their tasks.

Figure 2 was taken from the rear of another room in the Mexia school and shows the unequal lighting effect of extreme brilliance on the window side of the room as contrasted with insufficient light for proper seeing on the opposite side of the room against the blackboard. Meter tests showed from 200 to 300 foot-candles of light on the desks near the windows and from three to five foot-candles on the desks across the room near the inside wall. Such contrasts of light within the visual field of the child are bad aside from the fact of strong light glare in one part of the room and insufficient light in other parts. It will be noted also from the picture that many of the children are sitting in positions which produce curved spines (scoliosis), high shoulders, and body imbalance.

These pictures show an average situation found in practically all

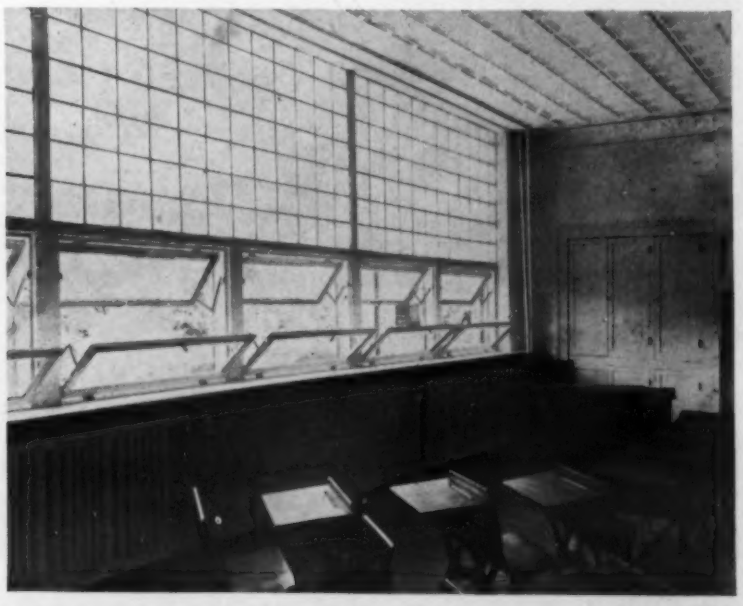


Fig. 4. A view of a classroom with glass block installation.

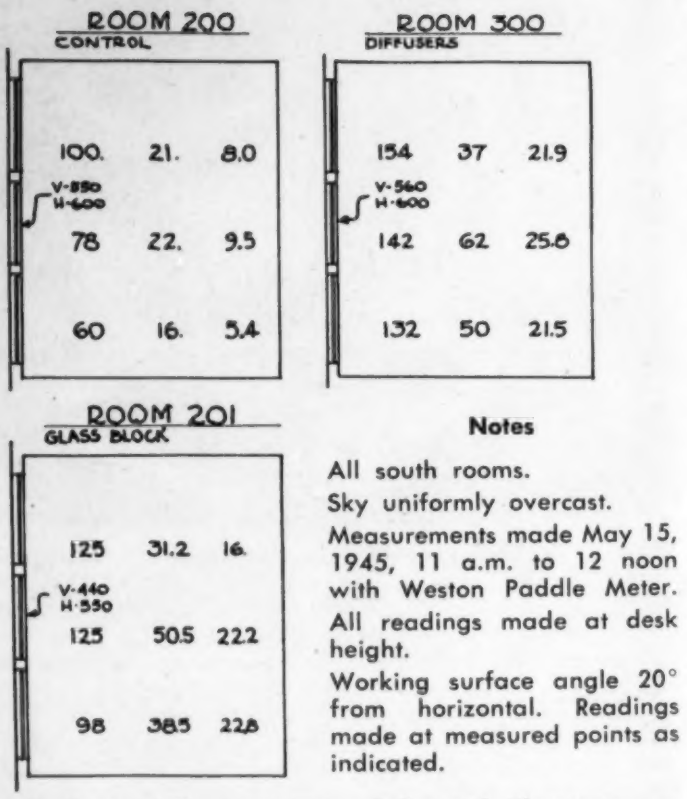


Chart 2. Foot-candle Intensities of Treated Classrooms as Compared with an Untreated Room.

schools where attention has not been given to the matter. To the prevention of these ills the environmental control program was devoted. Changes of a comparatively minor physical nature, and well within the means of the school with a limited budget, were made in the classroom. Results are shown in Figure 3. The light glare on the window side of the room has been greatly reduced, light on the pupils' desks against the inside wall has been increased to approximately 20 foot-candles, which is sufficient for effective seeing. The pupils sit erect and show few of the signs so evident in the first two photographs, and the general environment is much improved.

Changes brought about to produce these results were very similar to those described in detail in the article by R. L. Biesele, Jr., and done in the University Park school, Dallas. They included painting the walls and the ceiling of the classroom solid white (with certain scientific adjustments), using a water emulsion paint, painting the woodwork a very light gray, the floor a light gray, all blackboards white except a section in the front of the room which was left for demonstration use by the teacher, the use of cloth covered deflector frames over the upper half of the windows, and placing the pupils' desks at an angle such that the light from the windows falls upon the pupils' work rather than into their eyes. Deflector boards painted white on the inside were used at the bottom of the windows to aid in ventilation and to reflect the light into the room. The plan includes increasing the slope and changing the color of the desk tops to a natural finish instead of the traditional school brown, but these changes are yet to be brought into the Mexia program. The total cost per room of the alterations, exclusive of the window diffusers and deflectors, was estimated at only $40.

For comparative purposes, as well as to test the effects of a new design of glass block for classroom use, one room was equipped with glass blocks as shown in Figure 4. The even light distribution and the generally pleasing effect of the room with the elimination of window shades, make the room especially attractive and satisfactory.

Light distribution comparisons of three types of rooms used in the experiment are shown in Chart 2. It will be noted that the first room is the control, or untreated room, and shows a marked degree of light contrast from one side of the room to the other. The second room has been altered by redecorating and by the use of diffusers and deflectors on the windows. The third room is equipped with glass blocks. Rooms 300 and 201 show a good distribution of light with only slightly varying degrees of efficiency. These figures are sufficient evidence of the value of the program.

In order to carry the program to a scientific conclusion, various tests were given at the beginning and will be repeated within approximately one year. Both achievement and intelligence tests were given to each pupil in the school by the regular teachers. State Department of Health specialists, assisted by the local health officer, gave each child a physical, a dental, a visual, and a nutritional examination, using the latest approved methods and instruments. Records of each child are being preserved, including the seating position in the room, for comparative purposes at the conclusion of the experimental period.

The program has created a great deal of attention among school patrons of Mexia but no criticism. Through the co-operation of the medical fraternity, with special emphasis by the health officer, parents have been led to look to the major objective, the improvement of health and the prevention of physical defects, rather than to the novelty of the program itself. Teachers are confident of an improved attitude and atmosphere on the part of the pupils and the pupils claim that for the teachers there is also a psychological effect of ease, restfulness, and beauty brought about by the improved and prophylactic classroom.

Co-operation Cures Athletic Injury Headaches

Willard R. Grubbs[1]

"The purpose of the fund is to furnish medical, surgical, dental, and hospital care to those students who have been injured while participating in varsity or junior varsity athletics, supervised physical education classes, or in shop classes." This is the nub of the plan now in its second year of successful operation at the senior high school in DuBois, Pa., as a result of a co-operative endeavor by agencies representing business and professional men, the school administration, the school's student council, and the athletic advisory board.

[1]Instructor, DuBois High School, DuBois, Pa.

DuBois Supt. Karl M. Brewer says that the common understanding of the injury problem by individual members of these groups was the key to a situation that for years had caused DuBois administrators anxiety, not only for the students involved, but also for the periodic waves of uninformed talk that swept through groups of citizens concerned about their school athletic program.

How the many persons and agencies involved in the operation of the injury fund came to understand the problem, and how the fund was engineered are the features of this behind-the-scenes story.

The Old Injury Fund

When one of the periodic gusts of talk gathered during the 1943 football season, the DuBois Senior High School had already been operating an injury fund of its own for six years. Its limitations stemmed from the size of the reserve available for it and from the lack of organized understanding and policy among the physicians, dentists, and hospitals of the city. This fund drew its money from a percentage set aside from the $3 activities ticket purchased yearly by about 90 per cent of the students. The fund did not profess to

protect for hospital bills, surgery, X-rays, and other extensive medical or dental care. Every year, however, it took care of a great number of bills for damaged teeth, minor breaks and wounds received in the ordinary course of things in athletics and supervised physical education classes. Every year, however, there were a few dentists, physicians, and hospital authorities who did not understand that the old injury fund was limited to the payment of $5 per tooth for dental repairs or a maximum of $20 for any type of injury to any one student. The originators of the idea had predicted that the great bulk of injuries would fall easily within these maximums, and actual experience during six years was in line with the prediction, except for one year when there were so many injuries that it was necessary to probate the payments at less than the maximum.

There was a rumble of thunder, however, early in the 1943 football season, when a player received a broken shoulder during a game. He was a big, likable, quiet fellow who had no ax of his own to grind. But when it came time for him to pay his hospital bill and physician's fee, small swirls of indignation were stirred up around town by some of the well-meaning sports fans because the old fund could not pay the boy's full and rather expensive bill. Over one week end, recalls Supt. Brewer, the storm broke in a welter of gossip and impractical schemes for raising the money for the boy. When the superintendent attempted to chart the course of the flurry, luckily one of the first persons with whom he talked, an alert and informed professional man, said, "Of course the school has lots of money; look what it takes in at the football games." So that was it — the core of the dissatisfaction!

A New Attack on Problem

When the superintendent marshaled the facts readily available on the monthly mimeographed financial reports sent to all high school home rooms and to individuals in the administration by the high school activities bankers, his optimistic companion soon said justly, "Well, I never realized that!" What he had just learned was that the coaches, the faculty manager, and the principal, backed by the athletic advisory board, had been adhering for years to a strict policy of safety first in buying equipment and supplies for athletic teams. As in all carefully run athletic departments, the buying of shoes, protective devices, and medical supplies had been on a quality basis only. And no one in the administration or among DuBois citizens has ever questioned this policy. The financial reports showed that what sounded like big profit was being plowed back into health protection and injury prevention. The professional man was convinced that it would take a more productive method of building an injury fund if it were to give students and the medical agencies involved a sound coverage for all contingencies.

During conversations about the fund led by one of the city's civic-minded physicians, the suggestion came from a physician that all football admission tickets should have an additional 10 per cent tax that would go into the injury fund.

This suggestion opened a new line of attack on the problem. The athletic advisory board, Supt. Brewer, High School Principal E. J. Mansell, and the student council went to work upon a comprehensive injury fund — one that would protect cases involving heavy hospital and medical expenses as well as the common bumps, cuts, bruises, and breaks. A committee appointed by the student council visited physicians, dentists, and the city's two hospitals to explain the amount of money available, its sources, how it had to be spent, and how much could be earmarked to be put into an injury fund.

With the full explanation came full understanding, full co-operation, and a workable plan. All agencies contributed suggestions. Welded together, they form the written agreement drawn between the school and the physicians, dentists, and hospitals.

No Carry-Over of Obligations

The feature of the agreement that makes it workable under all conditions is the "no carry-over" clause. All agencies agreed that at the end of each school year the slate should be wiped clean of obligations, even if the fund should be so hard hit by a combination of unfortunate circumstances that physicians', dentists', and hospitals' bills had to be prorated. In that extreme there is agreement that each institution or doctor will mark the prorated bills "paid in full" and start upon a fresh basis the next fall.

The printed form of the DuBois High School Injury Fund regulations covers the three basic mechanisms that make the plan operable: (1) the sources of income; (2) conditions under which students are entitled to aid; (3) a specific statement about the hospital, surgical, medical, and dental care provided by the fund. Each physician, dentist, and hospital is supplied with a copy of the standardized rates used by the Veterans Administration, and claims are paid upon the basis of these rates.

The fund is administered by the school guidance counselor, who receives a nominal annual fee for handling claims, recording them and paying them, and keeping the fund's books balanced. Injuries are reported to the administrator on triplicate forms by the instructors under whose supervision the student was at the time he was injured.

Records for the first year of the fund's operation show a heavy load of injuries but a balance left in the fund. The administrator states that 1944–45 brought the highest injury rate of the seven years during which records have been kept. In an enrollment of less than 500 there were nine cases of serious fractures, costing a total of $246. The 58 other claims for cuts, bruises, infections, and even one dogbite brought the total drain on the fund to $593.75. The new sources of income, however, had built up the fund to $690.21, and so a reserve has been started. The second year's claims have been normal, and as this is written, the administrator anticipates a considerable addition to the reserve.

To keep the students and the public informed about the protection given to students who own activities tickets, the regulations governing the fund are published in each edition of the student handbook; reports are made to the athletic advisory board composed of school directors, students, alumni, and other citizens; and on every admission ticket sold for athletic events there is an itemized account of where the money is going. And so the workable plan of injury protection and the understanding among the interested citizens and among the physicians, dentists, and hospitals seem to have cleared the skies for DuBois school administrators for some time to come — at least as long as the athletic teams win most of their games.

DR. MILLER ELECTED COMMISSIONER OF EDUCATION IN DELAWARE

Dr. George R. Miller, Jr., on July 1 became State Commissioner of Education in Delaware, succeeding Dr. Holloway.

Dr. Miller, who was superintendent of schools at Salem, N. J., was guest of honor of the school board at a dinner on May 22, in the Salem Country Club. Among those present at the dinner and taking an active part were Dr. John H. Bosshart, New Jersey State Commissioner of Education; Chester Robbins; Charles Anderson, Assistant State Commissioner; and Dr. Edgar F. Bunce, president of Glassboro Teachers College.

PERSONALITIES FOR SOCIAL PROGRESS

When educational programs recognize and respect individual personalities more effectively and help them to achieve some order in their private worlds, they will help to develop the kind of personalities who can respect others and can work together in advancing our social order. Education of the individual is essentially social education. Adult education is chiefly re-education to help the individual live more wisely and effectively with himself so he can live more sanely and co-operatively with others. — *Lawrence K. Frank, in "The Journal of Educational Sociology."*

The Second Phase of De-Nazifying German Schools in Greater Hessen

Col. James R. Newman[1]

Since the first report on de-nazifying German schools in Greater Hessen was written[2] much progress has been made.

A number of officers and American civilians were added to the staff, including Capt. Dumont F. Kenny of Sommerville, N. J., and Lt. Ida R. Elzey, a former high school history teacher of Hartford City, Ind. Major Bursch, head of the department, has been promoted to lieutenant colonel, and Lt. Dingman, one of his assistants, to the grade of captain.

The real accomplishments in the de-nazification program and the restoration to the German people of a free democratic system of education has been made by Col. Bursch and the members of his staff, and should be of interest to the average school administrator who thinks he has problems in operating his schools. Some of these accomplishments are:

Elementary Schools

Of the 407,720 elementary school pupils in Land Greater Hessen, 368,137 are now attending school as compared with 325,000 on Jan. 1, 1946, an increase in attendance of 43,137 or 12 per cent in the past two months. Seventy-nine per cent of the total elementary school population was attending school on Jan. 1, 1946 as compared with 91 per cent attending school at the present time. The total number of 75,000 pupils not attending school on Jan. 1, 1946 has been reduced to 31,683.

A total of 351 additional elementary school plants have been put into operation since Jan. 1, 1946. Of the 2,440 elementary school plants in Land Greater Hessen, 2000 or 82 per cent were in operation on Jan. 1, 1946, and 2351 or 96 per cent are in operation at the present time. This indicates an increase of total school plants in operation of 14 per cent in two months.

A 14 per cent increase in use of school plants during the past two months was accompanied by a 12 per cent increase in attendance. These facts seem to indicate that the majority of nonattendance is caused by the lack of school plants.

However, a serious problem in keeping the elementary schools going is the lack of elementary school teachers. The de-nazification of all elementary school teachers has been completed, resulting in the removal of 50 per cent of them. Of the 8000 elementary school teachers screened in Land Greater Hessen, 4200 have been accepted. These figures show that only 8 teachers have been admitted as a result of screening since Jan. 1, 1946. This acute situation could not be relieved by a call for appeal cases and borderline cases from Kreis Schulraet. Partial relief was obtained, however, in the employment of 568 screened teacher helpers and emergency teachers.

A minimum of 3216 additional teachers is needed to permit normal operations.

[1]Director of the Office of Military Government, for Greater Hessen, Wiesbaden, Germany.

[2]SCHOOL BOARD JOURNAL, February, 1946, p. 33.

American officers and German officials at opening ceremonies of Frankfurt University. Col. James R. Newman, director, and Lt. Col. F. E. Sheehan of American military government, Greater Hessen. — U. S. Army Signal Corps Photo.

Secondary Schools

Of the estimated 45,000 secondary school students in Land Greater Hessen, 34,825 are now attending school as compared with 12,450 on Jan. 1, 1946. In the past two months the school attendance in secondary schools was doubled. Twenty-eight per cent of the estimated total secondary school population was attending school on Jan. 1, 1946 as compared with 77 per cent attending school at the present time.

This increase in attendance was made possible by the reopening of 24 additional high schools with the approval of military government in the past two months.

Of an estimated 126 secondary school plants, 89 are in operation, 23 are occupied by troops, and 24 have been bombed out beyond repair. Thus, of the 112 usable secondary school plants in existence, 79 per cent are in operation for school purposes and 21 per cent are occupied by troops.

Equally important as the shortage of secondary school plants in Land Greater Hessen is the problem of shortage of secondary school teachers. Of the 2000 secondary school teachers who have been screened, 1036 have been employed, an increase of 676 screened teachers during the past two months. The ratio of teachers dismissed to teachers approved is approximately 50 per cent each. In order to relieve this problem, 24 emergency practice teachers have been introduced to the schools. An additional number of 742 secondary school teachers is needed to permit normal operations of those schools which are already opened. A minimum of 200 secondary school teachers will be needed to reopen the remaining secondary schools.

Teacher Training

Three additional teacher training colleges have been opened in the past two months, involving a screening of approximately 2000 students as well as teachers. The five teacher training colleges have a total teaching staff of 42 professors and a total enrollment of 737 students, an increase of 137 students in the past two months.

Agricultural, Trade, Vocational and Special Schools

1. *Agricultural Schools.* Agricultural schools present a special problem in that food production is directly connected to the reopening of these schools and, therefore, of direct interest to the ministry of agriculture, and in that the control of the teaching staff and the control of the curriculum are of interest to the ministry of education for purposes of democratization. The decision as to whether the control of these schools rests in the ministry of agriculture or in the ministry of education is still pending.

Agricultural schools fall into three types:

a) Landwirtschaftliche Berufsschulen. Of the estimated 250 agricultural vocational schools (Landwirtschaftliche Berufsschulen) in Land Greater Hessen (for which the entrance requirements are graduation from elementary schools and which hold session full 12 months of the year), 31 have been reopened of which 20 have reopened in the past two months. Seventy-one

Col. James R. Newman, Military Governor of Greater Hessen, formally re-opening the University of Frankfurt.

politically satisfactory teachers are now employed in these schools as compared with 23 on Jan. 1, 1946, an increase of 48 teachers. A total of 4430 students are now attending these schools as compared with 1372 on Jan. 1, 1946, an increase of 3058 students.

b) Winter-Landwirtschaftsschulen. Of the 50 Winter agricultural schools (Winter-Landwirtschaftsschulen) in Land Greater Hessen (for which completion of the above-mentioned Berufsschulen is an entrance requirement, to which attendance is voluntary and which hold sessions only in winter), 23 schools have been reopened.

c) Special Agricultural Schools. Of the 9 special agricultural schools (Sonder und Höhere Landwirtschaftsschulen), 2 have been reopened since Jan. 1, 1946, 2 are occupied by troops, and 1 is damaged. The opened schools have a staff of 6 teachers and 105 students.

2. *Vocational, Trade, and Commercial Schools.* Of an estimated 170 vocational trade schools in Land Greater Hessen, 76 are open at present as compared with 49 on Jan. 1, 1946, an increase of 27 schools or 16 per cent.

3. *Advanced Trade and Technical Schools.* Two of the 18 advanced trade and technical schools have been opened since Jan. 1, 1946. The teaching staff consists of 6 teachers and there is a total enrollment of 345 students.

4. *Vocational Teacher Training Institutes.* One vocational teacher training institute with 50 students has been reopened at Frankfurt.

Universities

The medical faculty and the theological faculty of the University of Marburg opened on Nov. 6, 1945, with a combined teaching staff of 65 professors and an enrollment of 1655 students. Since Jan. 1, 1946 the faculty of philosophy and the law faculty have reopened, increasing the teaching staff by 60 professors and the enrollment by 345 students. The University has now filled its limited quota of 2000 students. Of the 219 professors screened at Marburg 96 or 44 per cent were rejected.

Two universities have reopened in Land Greater Hessen during the past two months. The Darmstadt Technical University (Technische Hochschule Darmstadt) was opened on Feb. 1, 1946. Seven divisions were opened with a total staff of 38 professors and a total enrollment of 1043 students. Of the 51 professors screened at Darmstadt, 13 or 25 per cent were rejected. Of the 1049 students screened, only 6 or less than one half of 1 per cent were rejected.

Four divisions were opened at the University of Frankfurt with a total teaching staff of 55 professors and a total enrollment of 2914 students. Of the 100 professors screened at Frankfurt, 45 per cent were rejected. Of the 2971 students screened, 61 or 2 per cent were rejected.

Youth Cultural Societies and Sports Organizations

Three Regierungsbezirk Youth Committee Meetings, one for each Regierungsbezirk in Land Greater Hessen, were held since Jan. 1, 1946 with members of Kreis Youth Committees present, in order to stimulate and guide the Kreis Youth Committees. Forty-one of the 42 Kreis Youth Committees have completed registration of their screened membership with these headquarters since Jan. 1, 1946. Approximately one third of all youth clubs and sports organizations has been registered in Land Greater Hessen during the past two months. In the order of frequency the following are representative types of youth and cultural organizations:

1. Sports clubs	500
2. Choral groups	200
3. General recreation, Boy Scout and Girl Scout type groups	107
4. Church sponsored youth groups	100

Films

The inventorying and impounding of educational and commercial films and apparatus was begun Jan. 1, 1946. Of the 42 film collecting and distributing stations (Kreisbildstellen) in Land Greater Hessen, 24 have been reopened with screened personnel. These stations have forwarded 13,688 reels of educational films and 12,225 educational slides to a central collecting depot for censorship and redistribution. A total of 402 projectors have been reported and 252 stereopticon machines. Only five Kreise have reported the inventory on commercial films. Sixty-eight movies have been listed with a total of 218 reels.

Adult Education

Adult education, utilized since 1933 as a propaganda agency for national socialism, is now being reorganized and redirected toward broad cultural aims. There are three adult education organizations currently approved in Land Greater Hessen, one each in Wiesbaden, Offenbach, and Darmstadt. The enrollment totals approximately 4000 adults, with a total of 162 instructors. Shortage of instructors and the complete de-Nazification of curriculums necessitates a careful processing of applications and a continuing follow-up.

Libraries

A 200 volume state department American library was opened as a part of the University of Marburg library on initiation of the American university officer. These volumes make American literature and 30 current American periodicals available to the German public.

The state library (Nassauische Landesbibliothek) in Wiesbaden had a circulation of 21,872 volumes during the past two months. Seven thousand Nazi books were segregated and stored in a special room. Fifty-six requests were made during the past two months, to withdraw volumes from this Nazi library. Forty-two of these requests were refused and 14 were granted to governmental officials, journalists, and scholars who rendered proof of their official need for these books. During the past two months, the state library has lost only 10 books through the moving of foreigners and the failure to return such books by troops.

Six hundred branch public libraries exist in the Regierungsbezirk Wiesbaden under the direction of the central public library in Wiesbaden.

(Concluded on page 67)

Planning a School Bond Campaign

Albion H. Horrall[1]

San Mateo, Calif., is a residential community located 18 miles south of San Francisco. Although there were no "war industries" within the city limits, the community grew from 19,500 in 1940 to more than 30,000 at the close of 1945. This growth was due largely to population overflow from San Francisco and the Bay Area.

A 50 per cent population growth in five years would be a shock to any school system, but it struck the San Mateo elementary schools at a time when building was extremely difficult due to war conditions. In addition, the new population contained a high percentage of young married couples with small children of preschool and primary school age.

In California there are two principal ways of obtaining building funds: (1) The school board may add an amount to the general budget requirements for building purposes so long as the taxes do not exceed the rate fixed by law (90 cents per $100 of assessed valuation for systems maintaining kindergarten and elementary schools only). (2) The board may call a bond election at which a two-thirds majority must be obtained to carry the election.

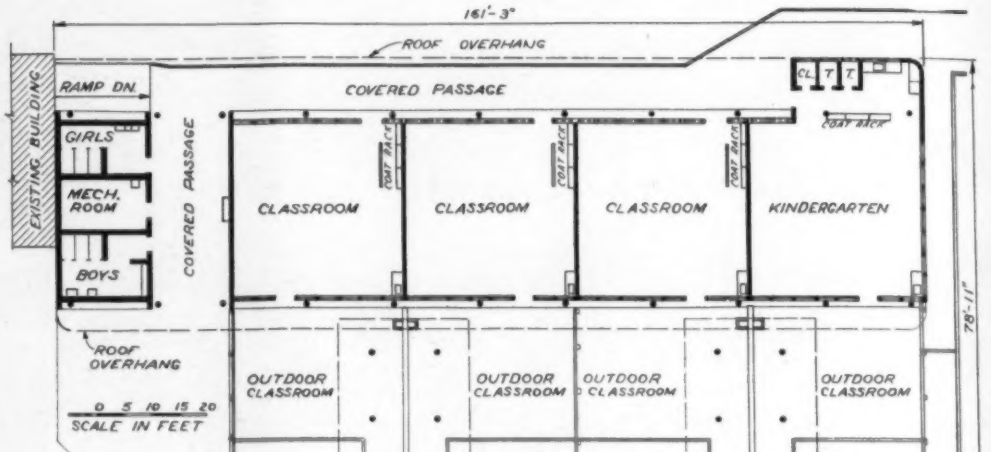
During the war years, the school board was able to set aside for its building fund an annual tax income of $25,000 to $35,000. This money was used to build classrooms where the need was greatest and to erect temporary classrooms to meet the emergency.

In March, 1945, the board, recognizing that definite plans for school housing to meet the growing needs of the community must be made, employed a firm of planning consultants to survey the building needs in relation to population trends and growth. This survey included a study of the present school sites and plants owned by the district, a study of anticipated building of homes in the community, a study of population growth, and a study of transportation needs.

The Overwhelming Growth

September, 1945, found the school district with an increase of 300 pupils over the enrollment in June of that year, when the schools were crowded to capacity. All classrooms were overcrowded and building funds had been exhausted. It became necessary to place four classes on a double session schedule (one group attended in the morning and another used the same room in the afternoon), use two basement rooms and an auditorium, and transport 50 children from one end of town to the other.

A rapid survey of actual home building in progress and immediately contemplated showed that, with the end of the war, San Mateo building was progressing more rapidly than the surveyors had predicted.



Floor plan of the Beresford Park Elementary School, San Mateo, California. — Ernest J. Kump, Architect, San Francisco. The assembly room, offices, teachers' room, etc., are in an adjoining existing building.

After gathering all the facts, the board decided that the erection of school buildings could not wait for the accumulation of funds by "method number one" pay-as-you-go for it was necessary to start some major building projects at once.

With the very low prevailing interest rates on school bonds (selling from 0.9 to 1.5 per cent) the board decided to launch a bond campaign to obtain sufficient funds to do a major part of the immediately needed adequate school housing.

By checking with the state school code and the county comptroller, the superintendent found that the district could bond itself only for $1,150,000, with the current assessed valuation. Checking with architects, it was estimated that most of the needed work could be done for that sum, although the present instability of the labor and materials market made it difficult to determine accurately what the ultimate cost might be.

The contemplated building program was outlined and presented to the school board at a special meeting. After some discussion it was agreed to accept the plan tentatively and to invite representatives of various interested groups to attend a meeting, at which the plan would be explained and comments and suggestions would be welcomed.

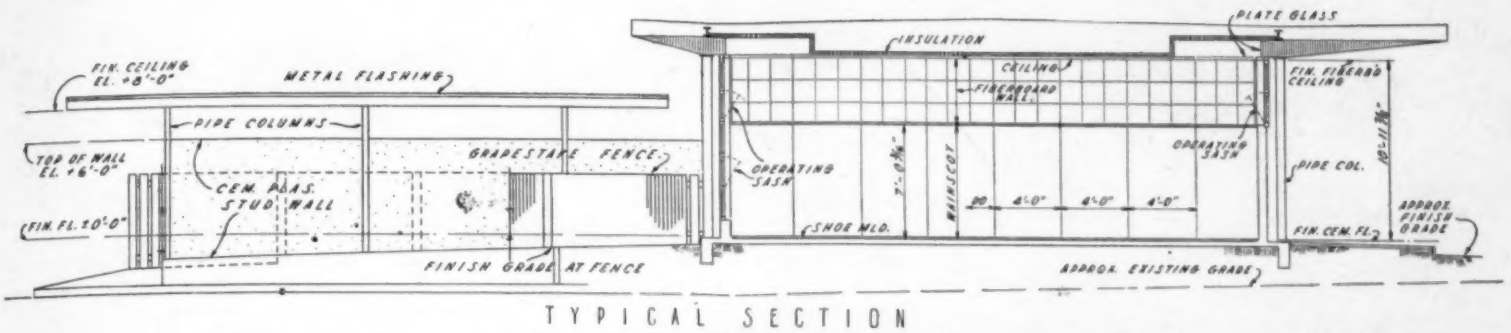
About thirty persons, representing as many civic and Parent-Teacher groups, attended the meeting. The response to the plan was most heartening. The chief suggestions were that the board should ask for *more* money in order to meet the increasing cost of building construction.

A Committee of Citizens Formed

Only one objection to the plan was raised at the meeting. That came from a person who no longer had children in the schools. His objection was that multiuse rooms and administrative units were unnecessary and that the amount of the bond issue could be greatly reduced if the school board would include only classrooms and "let the P.T.A. and other groups meet some place else." This challenge was met immediately by several P.T.A. representatives who informed the objector that schools were now community centers and that investment in rooms which could be used by boys' and girls' groups was the cheapest kind of insurance against juvenile delinquency.

Before the meeting adjourned, the representative of the Chamber of Commerce recommended that a citizens' committee be formed to assist the school officials in the bond campaign. The members of the committee were to be representatives of the various groups that had agreed to endorse the bond campaign. This suggestion was adopted by the group, and the superintendent was instructed to send brief statements to various civic, labor, school, and other community groups telling them of the proposed bond issue, the reasons for it, the approximate cost in terms of the average taxpayer, and to invite them to endorse the issue. Each group was informed that a citizens' committee would be formed in a short time for the purpose of campaigning for the election, and it was asked to notify the superintendent as soon as the group had authorized the endorsement so that a representative could attend the organization meeting.

[1]Superintendent of City Elementary Schools, San Mateo, Calif.



Typical section of a classroom of the Beresford Park Elementary School, San Mateo, California. The outdoor classroom is at the left, the classroom at the right, and the covered passage at the extreme right.

While waiting for the endorsements to come in, the superintendent tried to anticipate possible opposition to the bond election. He recognized that the community was just emerging from a small town attitude which caused every section of the city to be interested chiefly in what that part of the entire community would get out of anything that cost money. This small group attitude had been fostered by the geography of the community. San Mateo is divided longitudinally by two important barriers: (1) the main highway between San Francisco and Los Angeles, (2) the Southern Pacific Railroad. Horizontally there have been many barriers formed by large estates that stretched from beyond the city limits to the main highway. These undivided land areas have made it necessary for residents who live between the estates to go to the highway, travel several blocks (sometimes as much as two or three miles) before they could get to the home of a friend who lived in another residential section. Recently the owners of many of the estates have permitted their land to be subdivided, but even with the barriers removed the community has not been welded together as a whole.

Difficulties Encountered

This first difficulty had been anticipated by planning some needed improvements, major or minor, in the elementary schools in every section of the city. Using the citizens' committee as an instrument, the superintendent saw the possibility of not only winning the bond election but also of cementing many sections of the community together through this combined effort for the good of the children.

Another difficulty was the fact that many persons who reside in San Mateo commute every working day to San Francisco. Many of these persons are business executives who live in apartment houses and whose children are past school age. There are, also, an appreciable number of apartment and other property owners who are interested primarily in keeping down taxes. In order to meet the difficulties presented by these groups, it seemed important to contact as many apartment dwellers as possible and to present the needs. To secure co-operation from the second group would require personal contact and an explanation that good schools would increase real estate values.

Another possible difficulty presented itself in the form of objections from certain religious and private school groups. Here again, it seemed advisable to contact some of the leaders and to discuss the issue frankly with them. The success or failure of such contacts depended largely on the persons chosen to present the issue.

Still another problem was that of getting correct information to a large majority of the registered voters. Because of the nearness to San Francisco, many persons do not read the local newspapers. Many have no direct contact with the schools, hence it appeared essential to organize a door to door campaign.

Then there was the problem of getting the newcomers to register in time to vote. The California law requires that in order to qualify as a voter, it is necessary for the individual adult to have lived in the precinct where he now resides at least forty days, in the county ninety days, and in the state one year. Since there were many recent residents in San Mateo who were vitally interested in more schools, this was a real problem to be solved.

Within a week of the first citizens' meeting, 18 organizations had endorsed the bond campaign. The list included the Chamber of Commerce, the Realty Board, the County Labor Council, the Building Trades Council, a church group, eight Parent-Teacher groups, and several community "Improvement" clubs. The board decided to call a meeting at once.

A Short Intensive Campaign

All groups, who had notified the superintendent of their endorsement, were represented. The clerk of the school board presided, then called upon the superintendent to explain the building plan and to suggest some of the difficulties that might be encountered. The board clerk also notified the group that the date for the election had been set seven weeks hence. This decision had been made because it seemed wiser to conduct a "whirlwind" campaign than to set a date too far in the future.

A very active and efficient president of one of the P.T.A. groups was chosen as permanent chairman of the committee and a secretary was chosen from another section of the city. Immediately plans began to develop for getting the newcomers registered, as there were but nine days to perform this task. The chairman asked for volunteers to assist with this important task, and these agreed to meet the following day to work out plans for immediate procedure.

After many helpful suggestions were made, three committees were formed: publicity, organization, and finance. Dates for meetings of these committees were arranged and the group adjourned to meet in one week.

The school board and the superintendent agreed that it was well for the initiative to be taken by interested citizens and that the school authorities would make suggestions from time to time and would provide assistance in mimeographing and publicity through the school groups.

Two days after this meeting, the superintendent called a meeting of all teachers to explain the building program and to present the arguments in favor of a bond election. He had mimeographed a short bulletin in question-and-answer form setting forth the answers to major questions that might be asked concerning the election. He asked for questions and comments from the teachers and obtained the following suggestions: (1) A slogan contest could be conducted in the schools to arouse interest on the part of children and parents. (2) During the art period, the children might prepare posters that could be used in the campaign. (3) The civics teachers suggested that this would be an ideal opportunity for them to present the values of and requirements for voting.

Good Newspaper Publicity

The meeting adjourned with the superintendent reminding the teachers that a bond election required a two-thirds majority and urged them to make an opportunity to discuss the coming election with their friends, especially those who did not have children in school. He, also, cautioned them not to leave a discussion with unanswered questions. If the teacher did not have the necessary information, she was to get it from her principal or telephone the central office and then to contact the person who had raised the question and supply the correct answer.

The publicity committee was able to get exceptionally fine co-operation from the local newspapers. Every evening there was at least one article, many times on the front page, concerning the coming bond election. One of the papers ran a "box" every day with quotations from leading citizens concerning the

election. Editorials favoring the election were also run.

Other activities of the publicity committee included the preparation of a one-page bulletin to be mimeographed and sent to each home in the community as well as to every commuters' train, the preparation of a letter of invitation to be sent to other groups that had not been included in the original invitation and asking them to endorse the bond issue and send a representative to the citizens' committee, the arrangement for placing the posters prepared by the children, interviews with prominent citizens to secure quotations for the newspaper. A new responsibility came with the offer of the manager of one of the theaters to run a "trailer" advertising the school election. The publicity committee had pictures taken and prepared the script for the "trailer." They featured the winning slogan "Our schools are packed — It's time to act — Vote 'yes' on school bonds."

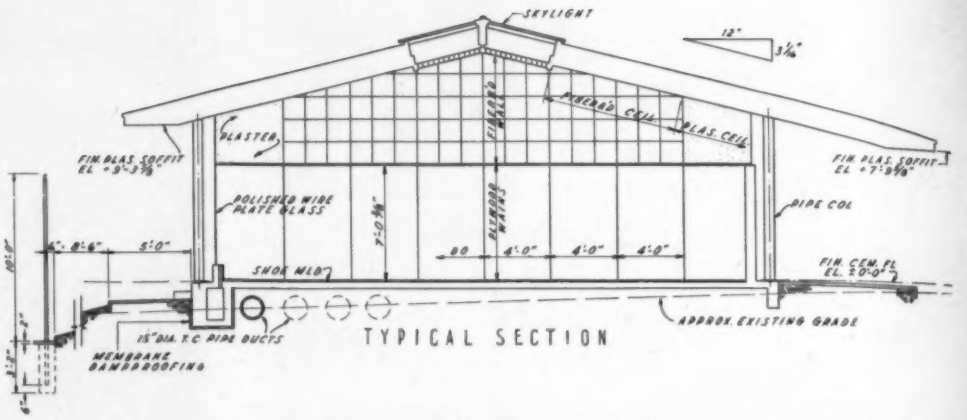
The organization committee met with the persons who volunteered to do something about getting the newcomers registered. A list of authorized assistant registrars was obtained from the county clerk's office. Three additional persons applied for positions as assistant registrars and were appointed by the county clerk. All the registrars worked in shifts at the near-by schoolhouses and registered elgible persons. In all, more than four hundred persons were registered and thus became qualified voters before election day.

All Voters Contacted

Another activity of the organization committee was to obtain city maps from the Chamber of Commerce and cut them into sections so that representatives of the various P.T.A. groups would know how much of the city was included in their territory. These groups were given the responsibility of getting a bulletin into every home. In some cases this was done by the ladies themselves, in others they had the assistance of children after school hours.

The organization committee also obtained cards containing the name and address of all registered voters. They secured persons to telephone each registrant who had a telephone and to urge him to vote for the bonds.

Other activities included the preparation of bookmarks that contained the essential reasons for a successful election. These were distributed at the city library whenever a person took home a book. Open house was held in two schools, one in the newest school in the district to show what progress had been made in schoolhouse planning and the other in the intermediate school where children from various sections of the city would attend as soon as the building could be enlarged.



Typical section of the Laurel Creek Elementary School, San Mateo, California. The entire outer wall at the left is glass and this light is supplemented by windows at the right and skylights in the top.

As election day drew near, committees of parents asked that rallies be held in two additional schools. The program of these rallies consisted of music provided by the children of the schools and panel discussions by members of the Toastmasters' Club. After each discussion, the audience was requested to ask questions which were answered by the panel members.

Every church in the city was contacted and conferences were held with the various pastors with the result that all churches participated in the campaign either by mentioning the coming election from the pulpit, by placing posters on church bulletin boards, or by placing announcements in the church bulletin. Some pastors did all three.

Speaking engagements were made with all service clubs. The speakers were chosen from the ranks of the Toastmasters' Club. A brief outline of material to be covered was prepared by the superintendent, but each speaker developed his own material.

Working up to the Climax

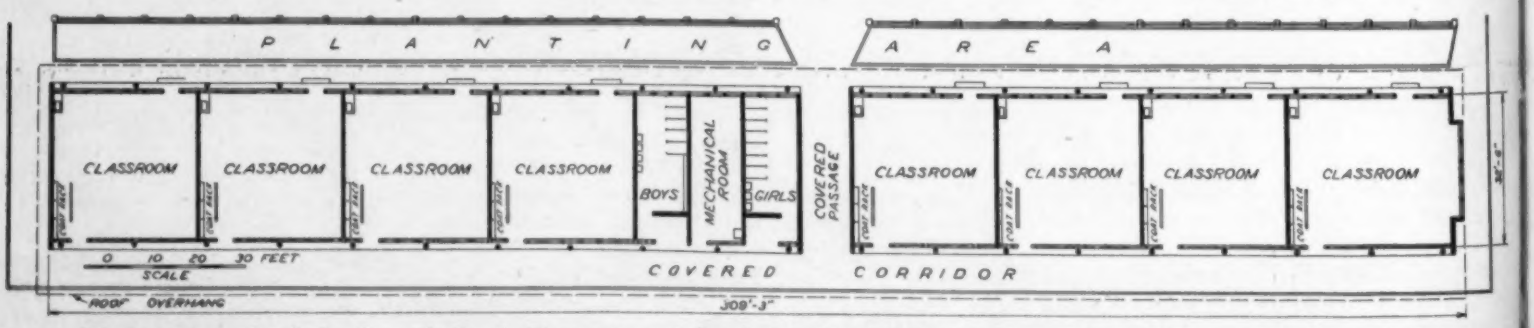
"Psychological" planning was used in developing the campaign. A campaign of short, intensive duration was decided upon. Seven weeks seemed ample, but meant that new registrants must be approached immediately. This gave the enthusiastic members of the citizens' committee something to do at once. After the "40-day limit" had passed, a brief lull occurred during which time advertising material was prepared, slogans were judged and posters were drawn. During the two weeks preceding the election trailers appeared in the theaters, advertising material was distributed from door to door, the telephone campaign was conducted, newspaper coverage was stepped up, talks were given before service clubs, open house and rallies were held at schools, churches made announcements and urged members to vote. In brief, the campaign was timed to reach a climax on election day so there was no "letdown" preceding the all-important day.

The point was constantly stressed that the vote must be gotten out and that one vote against required two votes for the issue. Auto caravans were in readiness to haul voters to the schools in case the weather were inclement.

Election day finally arrived and the weatherman produced a good day. More voters went to the polls than had voted at the previous presidential election. When all the votes had been counted, the school bonds had won by an eight to one majority. Every section of the city gave the issue better than two-thirds majority.

This was a notable victory, especially in the light of a recent experience when a bond issue for recreation and improved govern-

(Concluded on page 58)



Classroom unit of the Laurel Creek Elementary School, San Mateo, California. — Ernest J. Kump Company, Architects, San Francisco. Separate units will contain the all-purpose assembly room, the offices, health rooms, etc.

Why Not More and Better U.S.A. Reading?

William H. Allen[1]

Our U.S.A. school and college trustees are generally — and dangerously — keeping hands off, and minds off, the content and spirit of texts for readers and social studies.

Unless postwar school trustees show more curiosity about, and more accountability for, what textbooks and supplementary reading matters tell, how they tell and what they fail to tell about U.S.A.'s many-sided story, it won't be long before our voters will know more of, and care more for, foreign ideologies than for U.S.A. ideals.

A postwar history of the world teaches, with italics, that U.S.A. "began as an *aristocratic* republic"; doesn't index the Declaration of Independence but gives it three lines; gives Lincoln half of eight words.

A postwar history of U.S.A. teaches that slaves usually liked their slavery: "sometimes slaves were sold and families separated; sometimes slaves who ran away were tracked down with dogs and severely punished. But all these things were unusual."

Other histories are worse than wrong: they are so uninspired and uninspiring that students and teachers of them shun anything that looks or sounds like U.S.A. history the rest of their lives.

School readers that slight or distort U.S.A.'s story do vastly more damage and miss infinite good. They are read billions of hours a year at most impressionable ages, 6 to 18, particularly 8 to 15. School board members can easily learn if they help make citizenship that is safe for U.S.A. or for One World.

Why Talking Rabbits?

Young America by the million must turn from airplanes, movies, radio, veterans' troubles, food scarcity due to strikes or black markets, bus rides to central schools, museums, farm excitement, and atomic bombs to school readers about brown hens, red roosters, gray squirrels, pink pigs, fluffy dogs, talking rabbits, Greek goddesses, Roman gods, fictionized history, and exhortation to know One World.

The mechanics of reading can be mastered with stories about Lincoln as with stories about lions. It is just as easy to develop ability and appetite for reading of wide variety with stories about real U.S.A. giants as with stories of mythical Norse giants, with real U.S.A. heroes as well as with fiction heroes.

When experts say we are now teaching enough of U.S.A.'s story, trustees can ask "How do you know?" When experts say more U.S.A. in readers and histories would be boring, trustees can ask "How do you know that?" When experts say more history as now written wouldn't help U.S.A. or students, trustees can say "Then let's find and buy readers and histories that won't bore and will prepare for U.S.A. citizenship."

When contents show that texts and school papers lack stories of U.S.A. struggles, achievements, services, adventures, ideals, and problems — and World War sacrifices and lessons — trustees can say "Let's go shopping further! Recommend some other texts!"

Much of the illiteracy that was rejected for military service was due to school readers' content and blankness. Trustees can tell as well as professional guides whether "revised" readers and histories are new houses or just lean-to patches.

Study U. S. A. Inspirations

Postwar catalogs of colleges and professional schools show that U.S.A.'s future leaders — lawyers, doctors, preachers, nurses, engineers, accountants, editors — are seldom permitted, and much seldomer required, to study U.S.A. meanings, inspirations, and duties.

If the "American way of life" and "the American way of business" are worth preserving, surely they are worth knowing about and understanding. That means they are worth school and college time. Because the great majority never get far enough in high school to have U.S.A. history, with the biography it should have, our people will not have either the information or the inspiration to protect them against foreign dictatorisms and home-made dictatorisms unless U.S.A. light and truth and devotion are put into school readers.

[1]Director of Institute for Public Service, New York City.

THE N. E. A. IN BUFFALO

The dangers of slumping standards of teaching service, the growing shortage of trained teachers, federal aid to education, and support of UNESCO were the leading problems of American education discussed by nearly three thousand teachers in attendance at the N.E.A.'s first postwar convention, held in Buffalo, N. Y., July 1 to 6.

Running through the literally hundreds of papers and group discussions was a note of concern for the quality of American public school education — from preschool to university — due to the persistent drift of teachers from the classroom into other occupations and the necessity of recruiting staffs in rural areas and smaller communities with people to whom only emergency teaching licenses can be issued. It is estimated that more than a half million instructors have left their posts since December, 1941 and that 110,000 teachers hold emergency certificates. A serious aspect of the situation may be found in the low enrollment which the teachers' colleges have had and which do not seem to be rising in proportion to other types of professional schools. The difficulty as the speakers viewed it, is in the low average salary which now hardly reaches $1,800 per year and which in the case of thousands of southern and generally of rural teachers is hardly $20 per week. The convention urged a universal increase in salaries and set up the figure of $2,400 as a reasonable minimum.

The convention approved a resolution requesting the prompt passage by Congress of the Federal Aid Bill, under which the government would provide $250,000,000 annually to the state school systems on a carefully studied plan of need. Without this aid at least thirty of the states will be unable to adequately finance their school system and to pay their teachers a satisfactory professional salary.

The astonishing statement that Russia is spending for education the equivalent of 13 billion dollars, or 20 per cent of her national income, while the United States is only spending 3 billion dollars, or 2 per cent of our income, was made by Dr. Ralph McDonald, secretary of the N.E.A. Department of Higher Education.

"In the world-wide struggle between democracy and communism as ways of life, the outcome will be determined by education, not by force; the victor will be the teacher, not the soldier."

"During the war years," continued Dr. McDonald, "England, Russia, and other nations kept their teacher education students in college, exempting them from the draft because those nations considered the maintenance of their schools to be very important.

"In the United States, however, we consumed our seed corn with barbarous abandon through selective service policies of immeasurable foe which left our colleges almost empty of men."

"The Federal Government," he concluded, "gives a large amount of money to the states every year to help in the professional education of the pig farmer, but not one cent to aid in the professional education of the teacher of children."

To assure the schools of satisfactory staffs the Association decided to establish certification standards. A commission of nine leaders is to draw up a set of minimum teaching requirements which, while not binding, are likely to be widely accepted by local school systems.

The welfare and official security of teachers was the subject of a report by Dr. Alonzo F. Myers, president of the National Commission for Democracy Through Education. The Commission claimed an important victory in the fight against political interference with education in the Chicago schools, where a reorganization of the school board and a new method of selecting board members has been effected as a result of the Commission's findings. The Commission has been at work on cases in Nebraska and New Mexico and is seeking a fund of $50,000 for the continuance of its work.

Dr. Edgar J. Doudna, of Wisconsin, called attention to the dangers of staffing veterans' classes in the universities with instructors of indifferent ability and preparation and of having a low quality of instruction spread through the colleges.

The Association urged support of the UNESCO and discussed the need of introducing into the curriculum the study of peace, the effects of the development of atomic knowledge, better international relations. A resolution opposing peacetime conscription was almost unanimously adopted after a hot discussion of compulsory military service and its effects on education.

Mrs. Pearl Wanamaker, state superintendent of public instruction at Olympia, Wash., was elected president for 1946–47.

Is the Teaching Profession at the Crossroads?

Carl C. Byers[1]

One of the most vital concerns of any community should be the proper maintenance, administration, and adequate staffing of its public schools. The future success and happiness of children is the most imporant thing in the world. Now is the time of their preparation — their education can't wait — neither can it be repeated 10 or 15 years from now. If education is the "debt eternal of maturity to youth," then community support of schools is the fulfillment of an obligation to the children of a community. Good schools and good churches are a measuring stick by which any "newcomer" evaluates a community. Good schools providing maximum educational opportunities for children, enhance business and property interests, and also attract good citizens to a community. Without good schools taught by good teachers with sound American ideals, no community can remain first rate. In general, people want good schools. However, schools can be no better than community interest and support permits them to be.

Is the teaching profession at the crossroads? Which road leads to better schools, better teaching, and better opportunities for young America? Is the current teacher famine just another cycle which can be passed off by the public with a mere shrug of the shoulders?

Why the Crisis?

Why is there a crisis? Why aren't talented, energetic, ambitious young people entering the profession as they used to, and as they should? I'll give you the reasons — low beginning salaries; unsatisfactory living arrangements; too large classes; chances of marriage lessened and eventual fear of losing position if they do marry; unjust criticism of teachers from parents who have to place the blame somewhere; dislike of young people for looking and acting like some teachers they know; and lack of community respect, support, and appreciation.

The "heart" of the school program is the classroom teacher. The individual teacher's attitude and influence (positive or negative) is "radiated or chilled" through all departments of the school. The critical situation confronting the schools of the nation today is at this most crucial point — the teaching staff.

It's time that we give a serious accounting of what is taking place when we find high school graduates earning more than their teachers, teachers who have spent four years or more in college, plus varying amounts of time in summer school or evening courses, in some instances on borrowed money, to better prepare themselves for the job at hand. Many of these teachers have to supplement their modest income with a "job on the side" in order to satisfactorily support their family or dependents. I would pose three questions:

1. Is it fair to the teacher?
2. Is it fair to the boys and girls?
3. Would the parents of any number of these boys and girls be able to make a "go of it" on their salary?

Some of the noisiest critics of the educational program forget to think back and recall that if it had not been for their training in the schools, they themselves couldn't be in positions of responsibility today. It is always easy to criticize a tax-supported institution.

How Obtain More Funds

In general, people take in stride extra taxes on cosmetics, cigarettes, jewelry, fur coats, liquor, etc., but if it's an addtional tax in behalf of growing boys and girls — that's quite different. If critics would stop a minute and think, I believe they would agree that they have spent more in one social evening and thought nothing of it than it would cost to bring teachers' salaries to a decent level and keep them there.

We are all for lower taxes, but taxpayers must beware that they are not at the expense of the education of their own children.

What must we do? I submit for consideration the following 7-point program:

1. Educators must be a *part of* and not *apart from* the community.
2. Educators must *secure better understanding* of schools by co-operative planning with community groups interested in the educational welfare of youth.
3. *Educators should secure closer school-home relationships* in solving health and personality problems of the growing child.
4. Educators should maintain *closer co-operation* between administrators and the teachers, teachers of different levels, and teachers of different subject matter areas on the same level. (The single salary schedule is a step in this direction.) *There is no room for a caste system or professional snobbery in the schools.*
5. Educators should *plan an extended program,* based on functional learning, to meet the needs of that great group of secondary school pupils whose interests and needs are not best served by the traditional curriculum. It may be very unlike the typical school program. It must employ youth's time profitably. Business, industry, and education must pull together.
6. Throughout the entire curriculum, teachers should *strive for pupils' actual mastery of the tools required* for daily living in the adult world. Too much teaching of it has been mere memory work — even some of the noisy critics could do this memory type of teaching.
7. Educators should *attract thousands of gifted young people* into the profession by exemplary teaching — *pupils will take your profession at the value "you" give it.*

Looking ahead at the crossroads. At a time when teaching was most difficult and most essential, the schools of America accepted the challenges of wartime conditions and gave a good account of themselves. *As we look ahead,* educational sights must be raised higher. We must continually re-examine our courses of study, our activities (both classroom and extraclassroom) and our teaching efforts with boys and girls in terms of practical teaching aims and objectives (why, how, and what?) planned to adequately cope with the new and enlarged outlooks which must be met in the postwar educational picture.

There is no room in American classrooms today for the teacher who depends upon dictated, stereotyped procedures to inspire within youngsters momentary fears rather than lasting respect and confidence. The only way in which we can produce *creative, inspired citizens* is to see to it that they receive *creative, inspired teaching.* Creative, inspired teaching is dependent upon constructive, cooperative community interest and support.

The "Gripers" in Education

With a loss of many teachers from the profession and a shortage of new teachers, we are faced with a "herculean" task, a task that is often *misunderstood, underestimated,* and *often underpaid.* The teaching profession can't be improved by "griping" and "damning" on the part of members of the profession. I refer to those cynical teachers who kill the spirit and enthusiasm of young teachers entering the profession, and criticize their own profession in the presence of parents and children. *Those teachers should be working with machinery, not molding human personalities.*

There is little hope that the teaching profession will ever receive the rightful recognition that it deserves from its constituency, the parents and interested citizens of every community, unless we uphold and raise professional standards high enough that we accentuate the positive and eliminate the negative (the deadwood, if you please) from the educational horizon. A disinterested attitude and a philosophy of minimum performance is not the answer.

Whether our profession moves forward depends a great deal upon what teachers do with their schoolroom and community contacts. We need to drive home the importance of education. Yes, the teaching profession is at the crossroads. Will schools, in general, be more respected, more adequately financed or will they slip down in the eyes of the public as we face the postwar crisis in education? The answer depends upon us.

If we, as administrators and teachers, do not assume the responsibility for the betterment of the profession, then who can be expected to do it for us? The very least that we can do is to support our own cause and our own profession. The professional attitude and enthusiasm of each individual is of major importance, as we study our own situations and promote long-range programs of improvment. Our interest and enthusiasm plus a job well done will build adequate community support.

The manner in which our profession meets and deals with the current emergency problems confronting us can determine in a large measure the role that education will occupy in the postwar period.

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[1]Superintendent of Schools, Parma, Ohio.

► Maynard W. Linn, retiring superintendent at Stamford, Conn., has been appointed advisory counsel to the school board.

► Jack Marvin Glenn has been elected superintendent at Danville, Ky., to succeed J. H. Biles.

The Characteristics and Control of Radiant Heating Systems

H. W. Alyea

(Concluded from July)

Control of Radiant Heating Systems

The previous paragraphs of this article presented a brief, nontechnical outline of the art of radiant heating. Exhaustive research has been undertaken, by various individuals, on almost every phase of the subject, and numerous technical books and articles have been written. The reader is referred to these publications if further information is desired.

Very little has been written, however, on the subject of control of radiant heating systems. Unless a great deal of thought has been given to this problem it is very troublesome and, therefore, has usually been dismissed with a brief paragraph. Because of this lack of written material on the control phase of radiant heating, this subject will be treated here in detail.

Any heating system must be capable of producing comfort conditions during the lowest anticipated outdoor temperature. These low outdoor temperatures exist, on the average, for about 1 per cent of the heating season. At all other times, the heating system operates at less than full capacity. For economy reasons as well as for comfort, the output of a heating plant must be under adequate control. A radiant heating system presents some problems which must be given special consideration if successful control is to be realized.

The most important single consideration in the control of radiant heating is the inherent thermal inertia of the system. It is obvious that a massive concrete slab, in which hot water pipes are embedded, is not going to start emitting heat the minute hot water is supplied to the coils, nor is it going to stop emitting heat as soon as the water is shut off, or its temperature lowered. This thermal inertia is considerable, even in the case of ceiling or wall coils which may be covered only by a layer of plaster.

A room thermostat, as the primary means of control, generally will cause considerable cycling of the space temperature, whether it controls the quantity or temperature of the water supplied to the panel. On a rising space temperature, the thermostat reduces the heat input to the coils. However, the radiant surface continues to emit an excessive amount of heat for some time, during which the space temperature rises above the setting of the thermostat. This causes the thermostat to further reduce the heat input to the coils. Eventually, the space temperature will cool down to the point where the thermostat again increases the heat input to the coils. Because the radiant surface previously has been cooled too much, its heat output will not meet the requirements of the space for some time, and the space temperature will continue to drop. This results in a further heat input to the coils; eventually the space temperature begins to rise, and the cycle is repeated. The above analysis applies, whether the thermostat in question responds to changes in air temperature, to radiant temperature, or to a combination of both, and shows that, by controlling from space conditions, the thermal inertia, or storage effect of the radiant surface operates contrary to the requirements of satisfactory control results.

Change Must Be Caught Before it Occurs

Because of the inherent thermal inertia in the radiant surface and the action described above, it is apparent that the need for a change in the temperature of the radiant surface must be measured before it is reflected by a change in space conditions, if these space conditions are to be held substantially constant. In most cases, the internal load is relatively constant, and the need for a change in surface temperature arises immediately upon a change in outdoor temperature. Therefore, for the primary control of a radiant heating system, an arrangement which varies the surface temperature according to changes in outdoor temperature, is necessary. This requires an instrument which is known as a "weather compensated" controller, and it is so arranged that the temperature at which it controls is automatically raised or lowered in accordance with changes in outdoor temperature.

An analysis of the functioning of a radiant heating system under this type of control may serve to indicate further the advantages of this method. Assume that a drop in outdoor temperature occurs. The weather compensated controller immediately increases the heat input to the coils. However, due to the previously mentioned thermal inertia of the system, a certain amount of time elapses before this manifests itself by an increase in the temperature of the radiant surface. On the other hand, the drop in outdoor temperature does not immediately effect a change in the heating load on the system because of the time required to transmit this change through the building structure. Therefore, with the weather-compensated method of control, the thermal inertia of the radiant surface not only ceases to be a hindrance to good results, but definitely improves results because it is not desirable to change the heat output of the surface until the change in outdoor temperature becomes effective indoors. The ideal situation would be one in which the thermal inertia of the surface is equal to the thermal inertia of the building structure. Regardless of how seldom this ideal situation may occur, it is a fact that the thermal inertia of the surface is in the right direction with this method of control and is no longer a hinderance as it is when controlling from the space conditions.

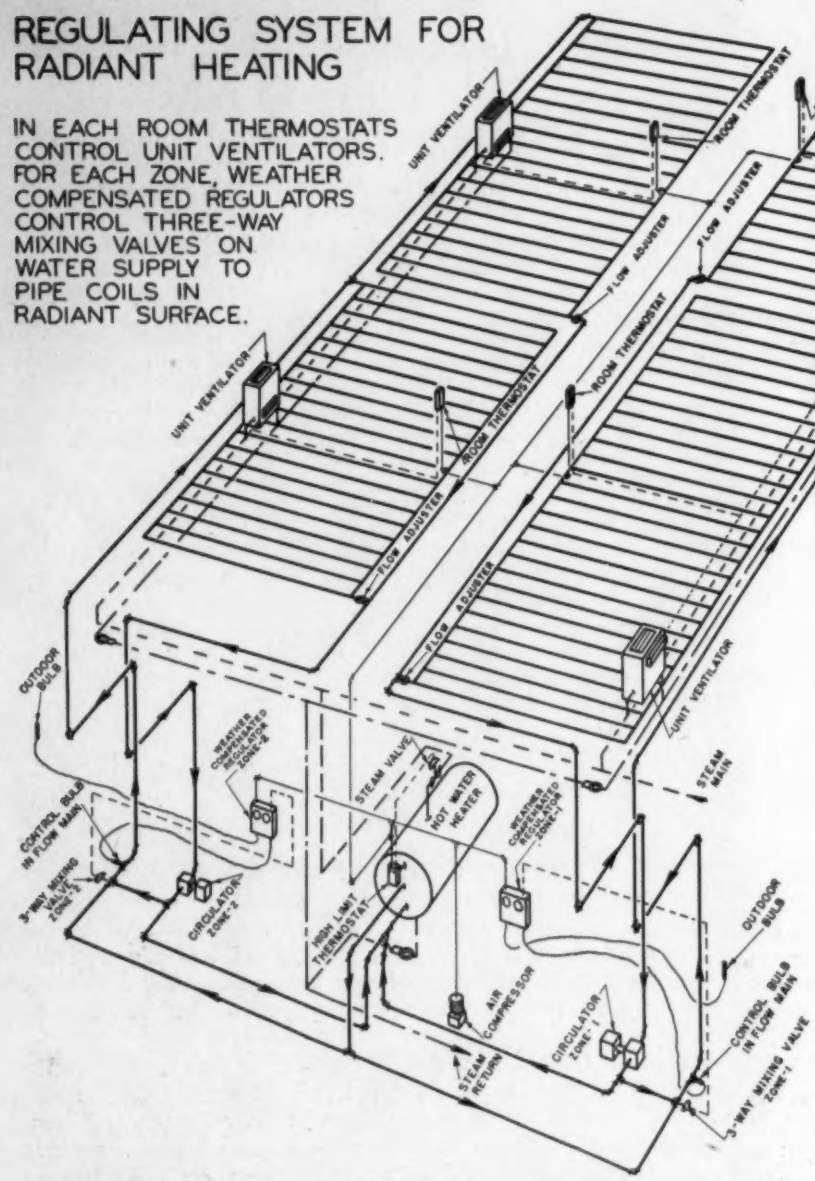
Primary Controls for Radiant Heating

A weather compensated controller employed as outlined above is known as a "primary" controller. Outlined below are several of the recommended methods of applying this type of controller to radiant heating systems, keeping in mind that installations vary considerably in many details. The descriptions, therefore, will be general rather than specific:

Method 1. On small buildings, in which the heating requirements throughout are substantially uniform, the primary controller may be used to directly operate an automatic firing device (stoker, oil burner, gas burner, etc.), on a hot water boiler. If a steam heated water heater is used, the primary control may regulate the water temperature by operating a valve in the steam supply.

Method 2. When a radiant surface is heated from a cold condition; i.e., when the system is first operated, or after a prolonged shutdown, the coils and the material immediately surrounding the coils become warm much sooner than the rest of the radiant surface. This causes a differential expansion which, in time, may injure the material which comprises the surface. Some engineers, therefore, have insisted on gradually increasing the maximum water temperature, over a period of several days. To accomplish this, a high limit immersion thermostat should be installed in series with the primary controller described in Method 1, above, with its bulb in the hot water outlet.

Method 3. Sometimes a building is divided into two or more heating zones, because of variable heating requirements. For example, the sun effect on a building progresses from east to west during the day. In the morning, the heating requirements on the west side are greater than those on the east side, while in late afternoon the reverse is true. In this zoned type of system it is necesaary to control the source of hot water independently, at some fixed value, and this may be done by an immersion thermostat as suggested for the arrangement described in Method 2, except that it is not in series with the weather-compensated control. A weather-compensated primary controller is required for each zone, with the weather-compensating bulb of each located in an exposure similar to that of the zone it serves. These weather-compensated controllers then will operate three-way valves which mix hot water from the heater with cooler return water from the coils, to provide the correct zone water supply temperature. Ordinarily, individual water circulating pumps are provided for each zone. The immersion thermo-


REGULATING SYSTEM FOR RADIANT HEATING
IN EACH ROOM THERMOSTATS CONTROL UNIT VENTILATORS. FOR EACH ZONE, WEATHER COMPENSATED REGULATORS CONTROL THREE-WAY MIXING VALVES ON WATER SUPPLY TO PIPE COILS IN RADIANT SURFACE.
UNIT VENTILATOR
ROOM THERMOSTAT
FLOW ADJUSTER
OUTDOOR BULB
WEATHER COMPENSATED REGULATOR ZONE-2
STEAM VALVE
HOT WATER HEATER
WEATHER COMPENSATED REGULATOR ZONE-1
STEAM MAIN
CONTROL BULB IN FLOW MAIN
3-WAY MIXING VALVE ZONE-2
CIRCULATOR ZONE-2
HIGH LIMIT THERMOSTAT
AIR COMPRESSOR
CIRCULATOR ZONE-1
STEAM RETURN
CONTROL BULB IN FLOW MAIN
3-WAY MIXING VALVE ZONE-1

stat controlling the heater may still be used to progressively raise the maximum water temperature, as outlined in Method 2 above.

Method 4. Method 3 makes use of an immersion thermostat to control the hot water temperature supplied to the zone mixing valves. This temperature is the highest which will be needed under severe weather conditions. Under mild weather conditions, the weather-compensated controllers are required to mix a small amount of very hot water with a larger quantity of cool return water, to produce the required zone water temperature. A more uniform water temperature would result if the hot water from the converter could be always about 15 or 20 degrees above the required zone water temperature. This suggests the use of another weather-compensated controller, in place of the immersion thermostat in the hot water line from the converter. This controller would have its outdoor bulb on the coldest building exposure.

Method 5. In any of the primary control methods suggested, it might be desirable to arrange the controls so that the zone circulating pump is stopped whenever there is no longer a demand for heat.

Room Temperature Controls May Be Added

The primary controls described in the preceding section operate on the principle that the amount of heat required at any time is directly proportional to the difference between the space temperature and the outdoor temperature. The primary control does not measure space temperature, but simply supplies the correct amount of heat to maintain the space temperature uniform under the varying outdoor temperatures. Any uncontrolled source of heat, or the presence of a variable internal heat load, will cause variations in the space temperature. In order to obtain closer control of the space temperature than is possible with primary control alone, room thermostats can and should be used, to limit or modify the action of the primary controls.

1. As a limiting device, a room thermostat is installed in the zone being heated, and is connected in series with the primary controller in such a way that the supply of heat to the coils is shut off whenever the space temperature exceeds the setting of the thermostat.

2. As a modifying device, the room thermostat is used to change the temperature setting of the primary controller to correct for variations in the space temperature. The primary controller, while still being weather compensated, is also arranged so that its temperature setting can be further modified by the zone room thermostat. The primary controller is of the type commonly known as a "submaster," while the room thermostat which does the modifying is known as a "master" thermostat.

3. Further refinement in space control can be accomplished by eliminating the zone thermostats mentioned in Method 2 and installing thermostats in each room. These thermostats would operate throttling or 3-way valves in the supply lines to the coils in their respective rooms.

Forced Ventilation and Radiant Heating Combined

Most advocates of radiant heating point out that lower room temperatures are permissible than are possible with conventional heating systems, without going to the trouble of explaining how these lower room temperatures are produced. The fact is, with a normally "tight" building heated by radiant surfaces, that the air temperature will tend to rise until, finally, it is practically equal to the mean radiant temperature.

In order to maintain room air temperatures that are much below the mean radiant temperature, some form of forced ventilation is required. In many cases this forced ventilation is required anyway, and for school buildings in particular, most states set up regulations fixing the minimum quantity of outdoor air which must be provided per pupil per hour. The use of forced ventilation does not eliminate the need for the primary control system for the radiant heating plant.

Central Fan System

If a central fan type of ventilating system is used, the temperature of the air delivered to the space should be controlled by a thermostat in the fan discharge, at a level equal to, or slightly below, the desired space temperature.

However, in addition to providing ventilation, the fan system is sometimes required to carry part of the heating load. This arrangement often is used when the heat output obtainable from a radiant panel is insufficient to meet the heating requirements at low outside temperatures. In this case the fan delivery temperature should be controlled as before, but by a submaster type of thermostat which is readjusted by an outdoor master thermostat. The master thermostat is set to readjust the submaster thermostat only at outdoor temperatures below which the radiant panels are incapable of carrying the load.

If the central fan system is required to augment the heating effect of the radiant panels at all times, then the master thermostat should be located in the space, rather than outdoors. Thus, at any time the space temperature deviates from the setting of the room thermostat, the delivery air temperature is raised or lowered to correct it.

Unit Ventilator System

A common method of introducing ventilation into schoolrooms is by unit ventilators. These unit ventilators are miniature central fan systems, one and sometimes more being provided for each room. Each

unit has an outdoor air connection, an opening for recirculating room air, and automatic dampers for varying the relative quantities of outdoor air and recirculated air. In addition, a heating coil is provided, with an automatic valve or damper arranged to regulate the amount of heat output of the coil. Many different cycles of operation are obtainable with these units, in order to make it possible to comply with the various state requirements which have been set up.

For example, some of the automatic control cycles are arranged so that, when the unit is started in the morning, with the room cold, the heating coil is fully on and no outdoor air is brought into the room until the temperature is within one or two degrees of the thermostat setting. At this point the outdoor air damper opens to a position determined by the minimum amount of outdoor air required for ventilation, while the recirculated air damper closes proportionately. The room is then ready for occupancy. As the room temperature rises further, the heat output of the coil is gradually reduced, and the relative proportion of outdoor air is increased, until a point is reached where 100 per cent outdoor air is being used and the heat output of the coil is just enough to warm this air sufficiently to prevent noticeable drafts.

Other cycles of control provide for a predetermined minimum amount of outdoor air at all times the unit is in operation, instead of only after the room temperature approaches the thermostat setting. In any event, all of these unit ventilator cycles are activated by a room thermostat, and the various sequences of operation are provided by adjustable linkages in the dampers, or by spring action in the damper and valve operators. Since the primary function of a unit ventilator is for ventilation rather than heating, unit ventilators are customarily used in conjunction with a direct radiator heating system. The common practice is to provide the radiator in each room with an automatic valve which is controlled also by the room thermostat in such a manner that the radiator is shut off just before the room reaches the required temperature.

It is perfectly logical to combine a radiant heating system with a unit ventilating system. The radiant heating system should be controlled by means of a suitable primary control arrangement, as outlined in a preceding section. This control should provide for a constant mean radiant temperature under all outdoor conditions, and determines the heat loss from the body by radiation. The unit ventilator system should be controlled in the manner outlined above, just as is done when it is used with a direct radiator system. This control then provides a uniform space temperature, and determines the heat loss from the body by convection. These two losses are therefore independently controllable.

A brief comparison of this system with a conventional system may serve to bring out some valuable points. In a conventional heating system, the space temperature only is controlled, and the convection loss of the body is relatively constant. The interior enclosing surfaces of the room also have a relatively constant temperature, while the temperature of those surfaces which have an outside exposure decreases with a decrease in outdoor temperature. Therefore, the mean radiant temperature of the room is not constant, and the radiant loss from the body increases as the weather becomes colder outside. That is why a room temperature of 70°, which feels comfortable when the weather is mild, is not adequate during cold weather. In school buildings, which have relatively large glass areas on the outside walls, this effect is particularly noticeable. An equal feeling of comfort at low outdoor temperatures can be maintained only if the mean radiant temperature, as well as the air temperature, is kept constant.

A combination of radiant heating plus unit ventilators will produce this result. The weather-compensated control for the radiant system is arranged to increase the radiant panel temperature just enough to offset the decrease in the temperature of the exterior walls, thus maintaining the mean radiant temperature at a constant value. The constant space temperature provided by the room thermostat is now adequate because the influence of cold exterior walls has been counteracted by the radiant heating system.

Board of Education, Hazard, Kentucky

Seated, left to right: Joseph C. Eversole (3 years); V. C. Ficklen (8 years); Dr. R. L. Collins, chairman (22 years); W. W. Reeves, vice-chairman (11 years; E. C. Wooton, secretary (25 years). Standing, left to right: R. T. Whittinghill, superintendent (22 years); Clyde Leveridge (4 years).

Pictured above is the Hazard, Kentucky School Board which has seen nearly a century of service to the public schools of Hazard. The present superintendent, who retired on July 1, after a continuous service of twenty years, has seen the schools grow to a school population of 2600 and the teachers employed increase from 40 to 65. During the present administration two new school buildings have been constructed and another piece of property in the heart of the city acquired from the Hazard Baptist Institute. The building on the property has been re-worked and arranged into suitable classrooms while the main grounds have been graded for a football field which is to be lighted this summer. Mr. Whittinghill will be succeeded as superintendent by Mr. Roy G. Eversole, present principal of the high school who graduated from the high school in 1925.

Practical Factors in the Design of All Day Trade Schools

H. W. Paine

(Concluded from July)

Girls' Work — Cosmetology

Shop Classifications

Two rooms.

Shop Details

1. Two rooms, 30 by 50 ft. with connecting conference room.
2. Floor — battleship linoleum or plastic.
3. Conference room, 18 by 20 ft. between the two classrooms.
4. Wash and locker room, 15 by 15 ft.
5. Supply room, 8 by 10 ft. serving both classrooms.
6. Equipment.

Locate with proper clearance spaces. Use scale cutout models and scaled cross-section paper. When distributive education is offered as part of the vocational program and a practice sales room is maintained to provide practice in counter and display work and sales technique, it is well to locate the advanced cosmetology shop where outside patrons may be received and wait for service, in close proximity to the practice sales room. This will provide opportunities to sell the school, as well as its products, to the visiting ladies.

Business Education

Shop Classifications

A complete setup would include a bookkeeping room, a stenography room, a typewriting room and a production laboratory that is a part of the typewriting room or is located between the typewriting room and bookkeeping room, depending upon the funds available.

Shop Details

1. Room sizes: Bookkeeping room, 30 by 50 ft.; stenography room, 30 by 50 ft.; production laboratory, 30 by 50 ft.
2. Floor — battleship linoleum or plastic.
3. Wash and locker room, 15 by 20 ft. (for 3 rooms).
4. Supply room, 8 by 10 ft., to be located in the production laboratory.
5. Equipment.

Locate typing tables, bookkeeping machines, etc., with cutouts and scaled cross-section paper. Arrange production laboratory equipment to facilitate handling of supplies and to give easy access to all parts of the room.

Related-Subjects Rooms

The related-subjects rooms in a vocational school fall into 3 classes: (1) rooms for subjects such as related mathematics, history, English, (2) the laboratory type rooms for automotive science, machine science, and (3) drafting and blueprint reading rooms.

Type (1) rooms present no special problems in design. A choice must be made between the conventional tablet-arm chair or desk-type equipped room and rooms equipped with tables and chairs. The latter type are preferable for vocational classes and although

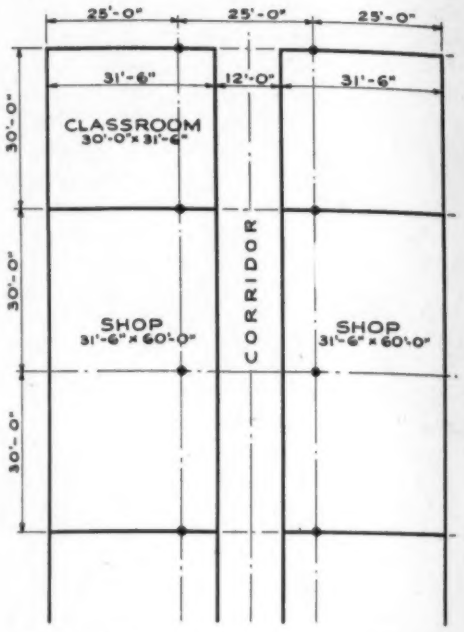
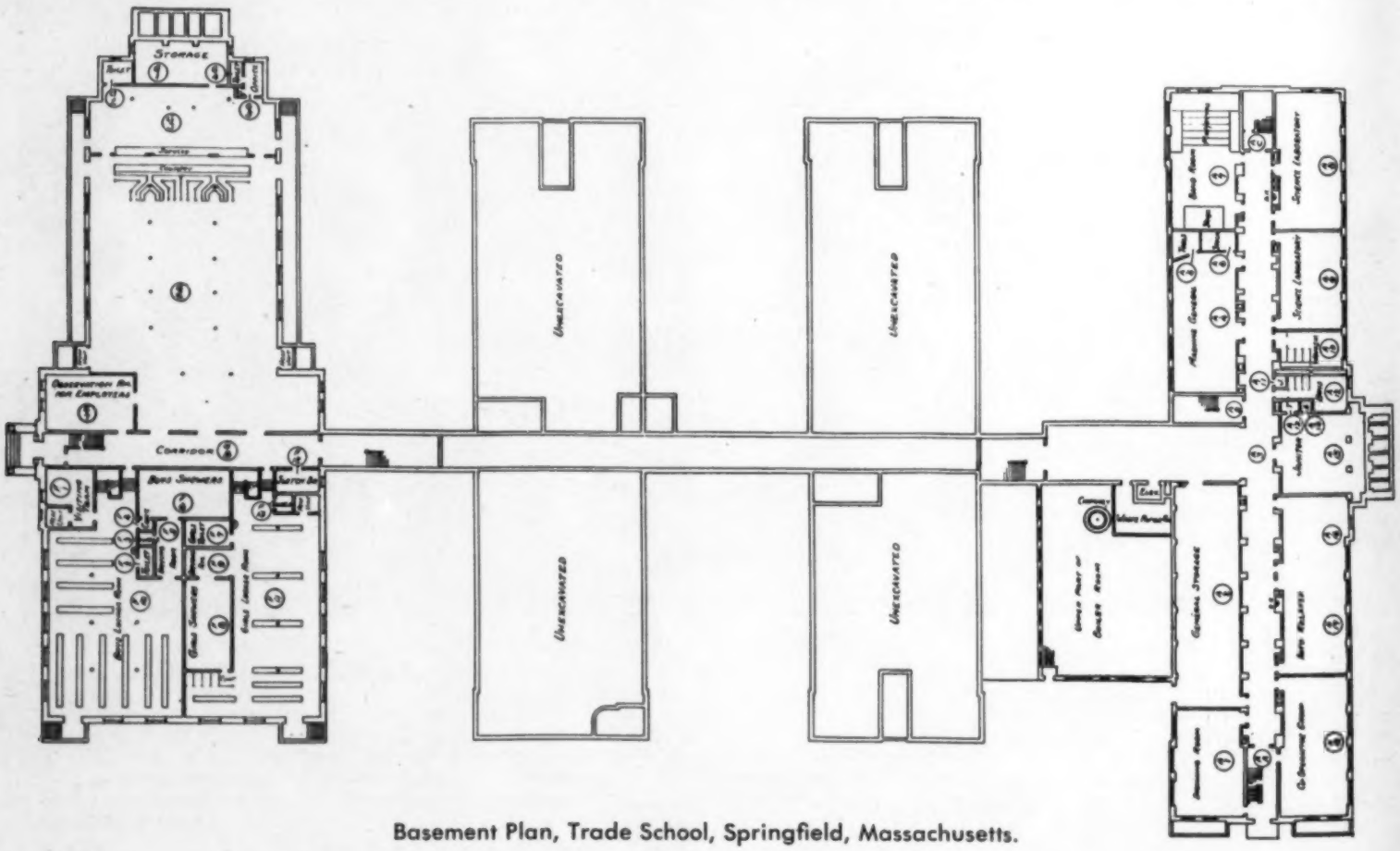
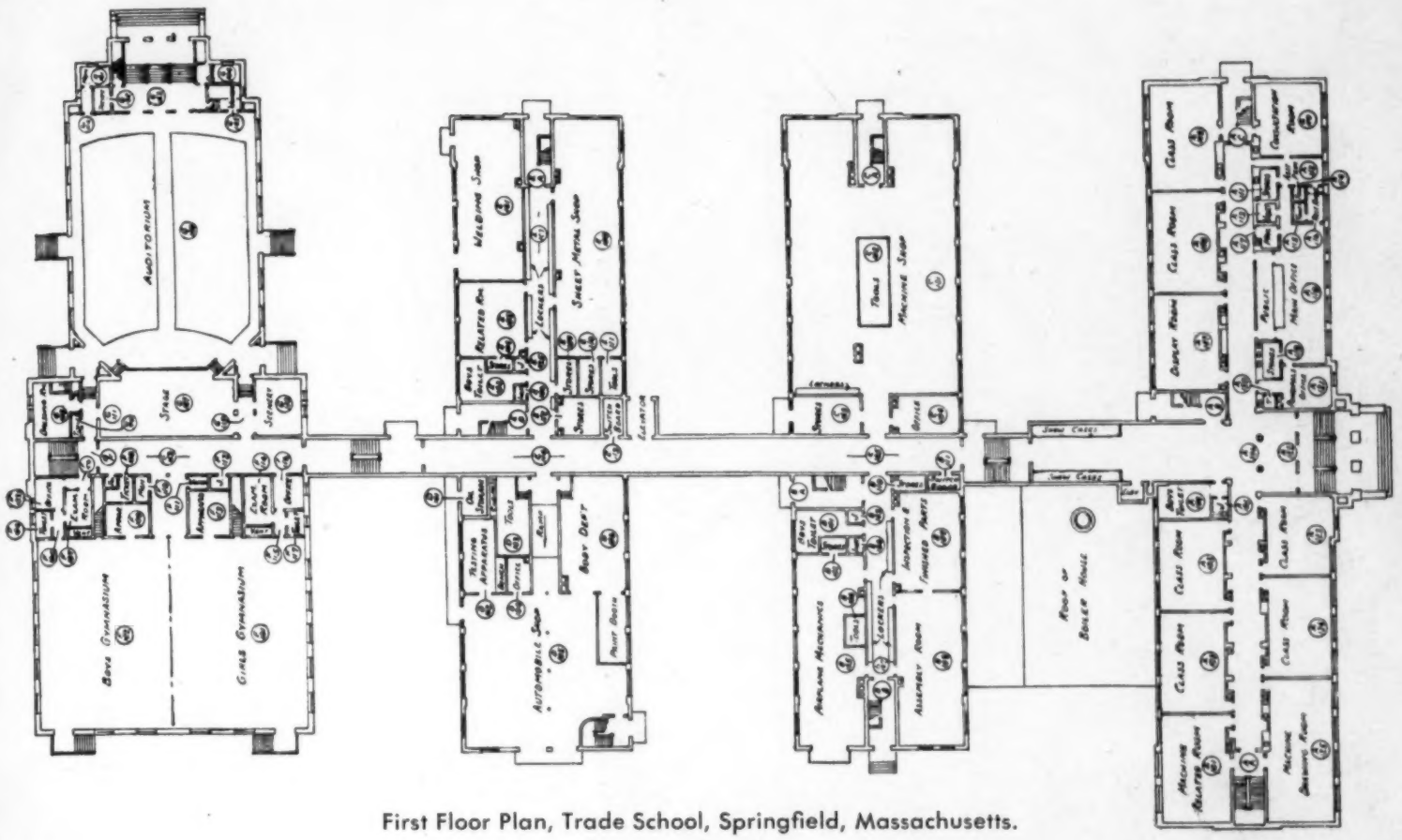


Fig. 1. Post spacing 25 by 30 ft. Longitudinal but narrow shops 31 ft. 6 in. by 60 ft. Classrooms 30 by 31 ft. 6 in.



Basement Plan, Trade School, Springfield, Massachusetts.



First Floor Plan, Trade School, Springfield, Massachusetts.

they should be slightly more roomy, they are well worth the extra cost. Macomber Vocational High School furnishes excellent examples of such rooms. The laboratory type rooms for a vocational school such as we are considering will vary in equipment according to the trade being taught. However, these rooms will have one thing in common; they should provide space for equipment and displays, and, in addition, provide an area for tablet-arm chairs at one end with blackboard space for class discussion. Such rooms will be approximately 40 by 70 ft., with linoleum floors. The test equipment and experimental tables should be located and spaced by the scaled cross-section paper and movable model method described for the shop equipment. In case of the machine science "lab," provisions should be made for metallurgical testing and heat treating. This will necessitate providing means of exhausting fumes.

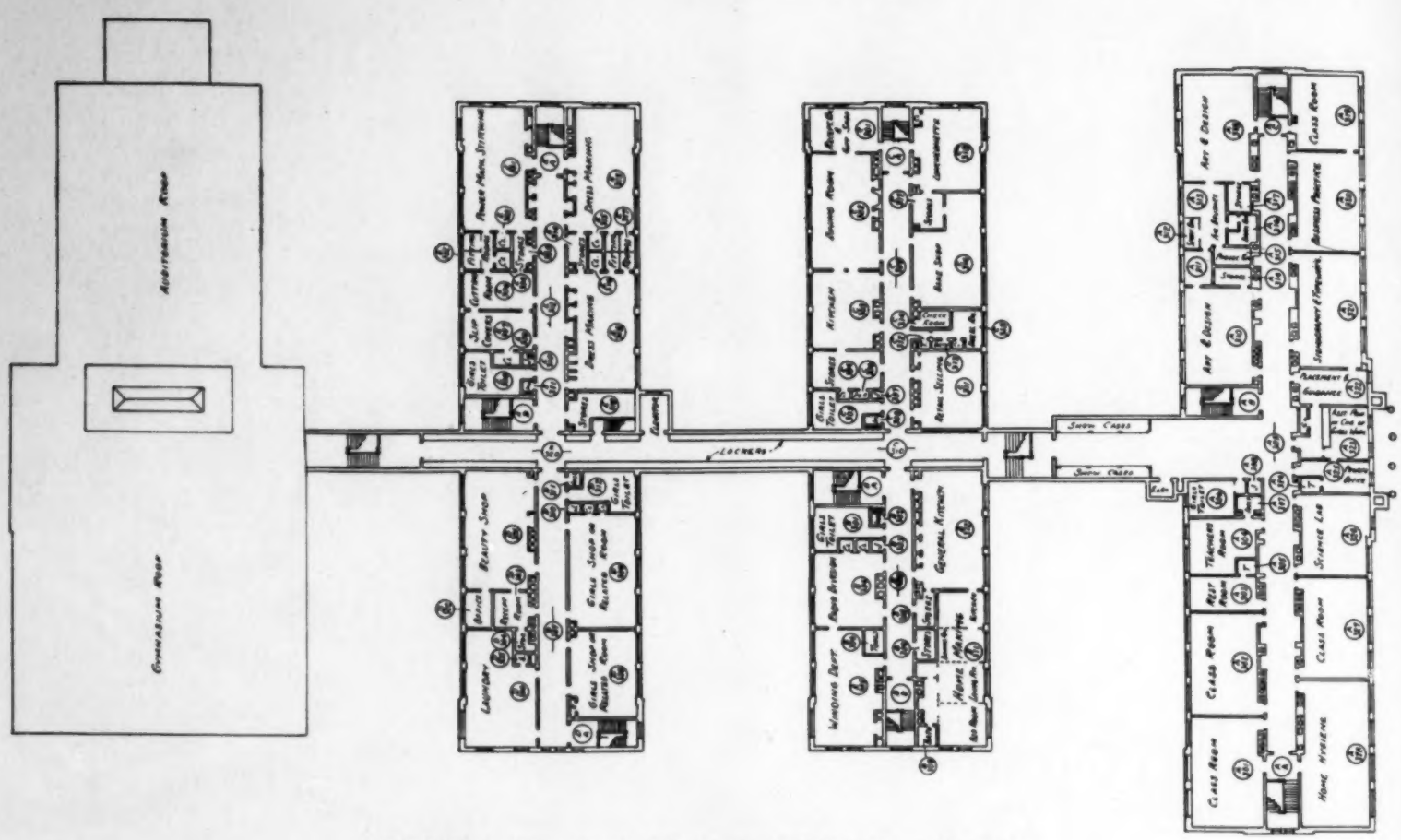
General Comments on Building Layouts

In laying out the vocational building the architect must decide upon the spacing of posts to support upper stories and the ceiling unless a shop is to be a single story without posts. Where it is desired to lay out shops either side of a center hallway, the post spacing must be manipulated to give the room sizes desired. A central hallway, between the rows of shops, down which trucks may be driven to deliver materials to any room is a most convenient arrangement if access to the shops cannot be secured from outside areas. Figures 1, 2, 3, 4, and 5, show what can be done by different arrangements of the 25 by 30-ft. post spacing commonly used. Other possibilities are also touched upon. If it is desired to lay out the shop or classrooms either side of a corridor, say 12 ft. wide, laying out 3 bays will give rooms 31 ft. 6 in. wide (neglecting wall thicknesses). In other words, the room widths are too narrow for most shops, but this arrangement could provide excellent classrooms, 30 by 31 ft. 6 in., or narrow shops, 31 ft. 6 in. by 60 ft. Obviously longitudinal shops, or shops with their longer axes parallel to the axis of a wing of a building, will have much better natural lighting from the outside windows.

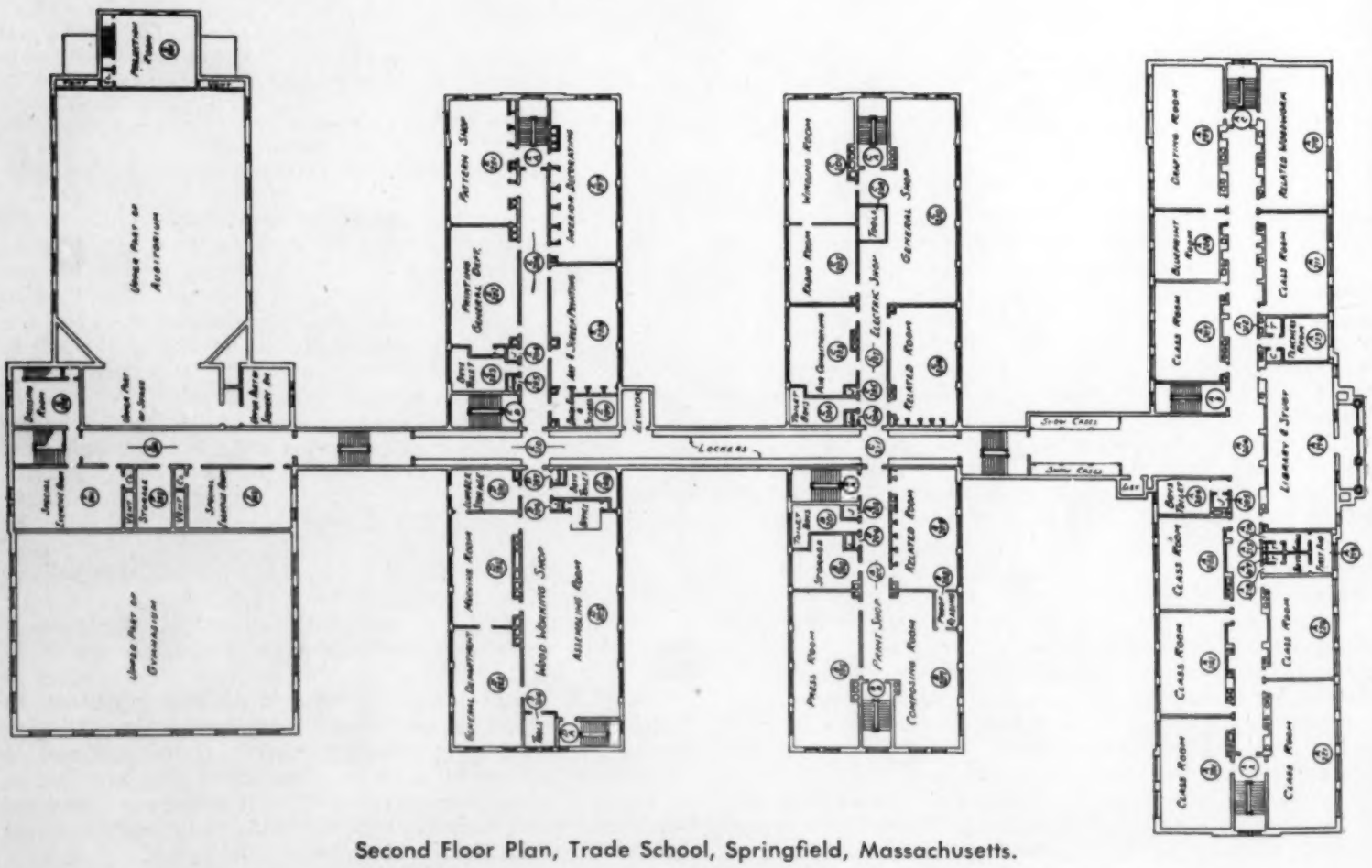
Laying out the centers with the 30-ft. spacing running transversely (not approved practice), the room width comes out 39 ft. See Figure 2. This arrangement would be satisfactory for most shops and can be used when it is desired to have the axis of the shop parallel the central corridor, or where classrooms larger than the 25 by 31 ft. 6 in. rooms, provided in Figure 1, are desired. Obviously shops 39 by 50 ft. or 39 by 75 ft. could be laid out with this design that would have excellent natural lighting characteristics.

With wall thicknesses and locker depths deducted from the room width, shown in Figure 4 there will be left effective widths between 65 to 66 ft. If a 25 by 28-ft. spacing were to be used and spaced as in Figure 4, the room width would become 64 ft. (without allowances for walls). Another arrangement of shops is to place their long axes perpendicular to the axis of the hall or wing as in Figure 5. Still using the 25 by 30-ft. post spacing we are able to develop greater flexibility in shop sizes; that is, if the partitions between shops are made of light steel and glass that can be removed at will, throwing two shops into one, three shops into two, or effecting other arrangements as changing conditions warrant. Incidentally, this arrangement, followed in the Macomber Vocational High School design, proved most effective and desirable.

The possibilities are shown in Figure 5. Using the 25-ft. spacing (transversely), shop lengths of 81 ft. 6 in. would be secured; by erecting the light steel and glass partitions on alternate post lines, as on the left side of Figure 5, shops would be secured of full 60-ft. width. Erecting partitions between selected rows of posts, 45-ft. widths could be secured, or 30-ft. if so desired. As previously pointed out this design lends itself well to securing flexibility in shop sizes and arrangements. If the post spacing were to be laid out on a 28 by 30-ft. center, the shop lengths in Figure 5 would be increased to 92 ft. If conference rooms and washrooms are included in each shop this 92-ft. length, secured by the 28-ft. bays, is very desirable.



Third Floor Plan, Trade School, Springfield, Massachusetts.



Second Floor Plan, Trade School, Springfield, Massachusetts.

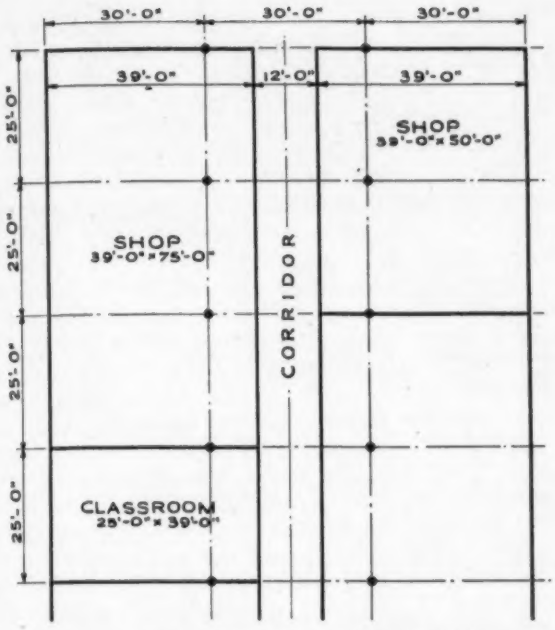


Fig. 2. Post spacing 30 by 25 ft. Longitudinal shops 39 by 75 ft., 39 by 50 ft. Using the same spacing as in Fig. 1, but setting up 5 bays as in Fig. 3, the shop widths become 56 ft. 6 in., and shops 56 ft. 6 in. by 60 ft., or 56 ft. 6 in. by 90 ft. can be provided

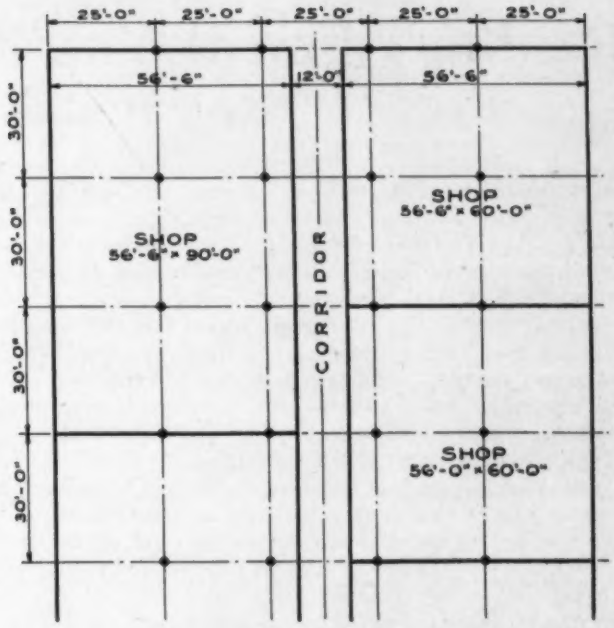


Fig. 3. Post spacing 25 by 30 ft. Longitudinal shops 56 by 60 ft., or 56 ft. 6 in. by 90 ft. Using the reversed spacing as in Fig. 2 but with 5 bays we may secure shop widths (or lengths) of 69 ft. (see Fig. 4), and larger shops 69 by 50 ft., 69 by 75 ft., or longer can be secured

If funds are available, and the large shops are carefully designed, the ultimate capacity of the building can be increased greatly by converting the single teacher shops into two teacher shops with doubled classes. Again, flexibility may be secured from year to year with varying enrollments in certain trades by converting some few of the shops to the two teacher double class arrangement. Providing all the floor space possible in shop planning practically always effects economy in the end. Figure 5 shows several shop arrangement possibilities to provide large floor areas.

Obviously, if the building is designed with several wings, different arrangements may be provided in different wings to meet the needs of particular shops. Drawings 1, 2, 3, and 4 are tentative plans worked out by different groups to show the possibilities of different arrangements.

Summary

In this article, the author has attempted to outline the underlying philosophy of vocational education as it affects the design and layout of new vocational high school buildings. A few of the many practical problems that must be solved before common sense designs can be effected for the different shops, laboratories, and classrooms have been touched upon with the hope that they will prove helpful to administrators and vocational teachers faced with converting the taxpayer's dollars into the best possible housing for the preparation of the future citizen mechanics of industrial America.

No attempts have been made to cover such problems as auditorium layouts, office plans, appearance and general arrange-

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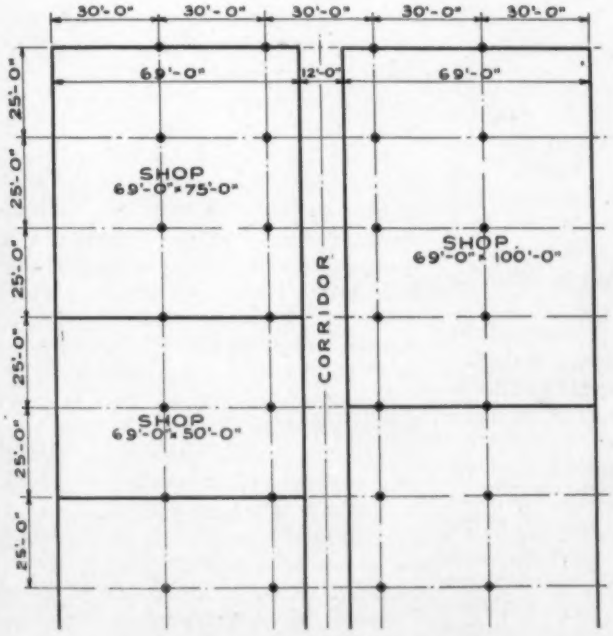


Fig. 4. Post spacing 25 by 30 ft. Longitudinal shops 69 by 50 ft., 69 by 75 ft., 69 by 100 ft.

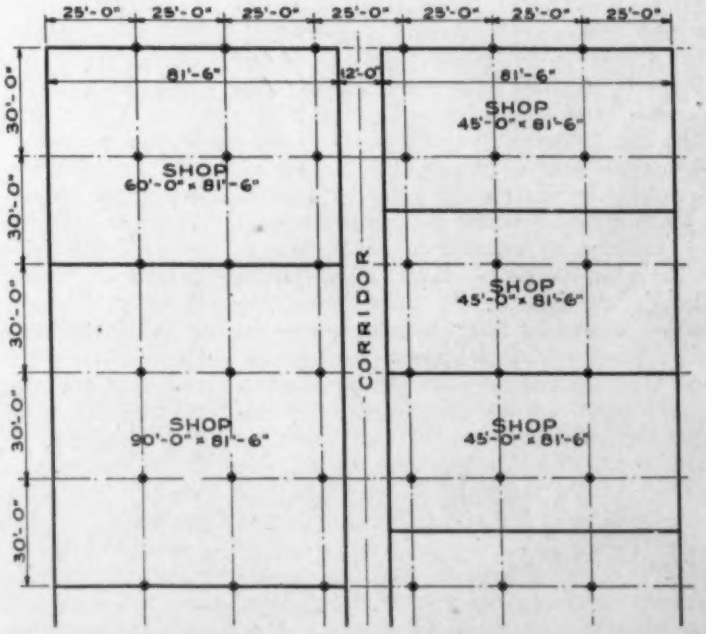


Fig. 5. Post spacing 25 by 30 ft. Transverse shops, 45 by 81 ft. 6 in., 60 by 81 ft. 6 in., 90 by 81 ft. 6 in.

"Reading's Fun If You Know How"

Floyd W. Hoover[1]

It is impossible for a single paper to give consideration to the teaching of all the various kinds of reading. Therefore, the present discussion is confined to the teaching of that kind of reading which is used to extract the gist from content or pull out the main ideas from, for example, such reading materials as the newspaper, popular magazines, and most "escape" literature.

It must be assumed for the moment, of course, that diagnosis shows a need for training in this kind of reading. Occasionally a pupil will be found whose reading has been so extensive that he has acquired the skill more or less unconsciously. Obviously, such an individual needs no further practice under the direction of a teacher. Instead, he needs guidance in intensive reading. However, the majority of pupils and university students who enroll in the reading laboratories of the University of Wyoming do need training in extracting main ideas rapidly. In all probability the same situation prevails in most high schools.

One of the first steps necessary to prepare pupils to accept the idea of the feasibility of this kind of reading is to convince them that a wide span of recognition is possible. It rarely occurs to them that they can use the peripheral area of vision for the recognition of words because much of the reading done in high school makes no demand for speed.

If a pencil is held in full view before the class and the members are asked to focus their eyes upon it, they will quite likely be surprised by the amount they can see far to the right and left of the pencil, excepting, of course, any unfortunates afflicted by "tunnel vision." Wide-angle vision is one of those gifts which is used widely but to which little thought is given. We simply accept it and do little to develop it for specific purposes.

If a page of an ordinary book is divided by pencil lines into four approximately equal columns, most pupils can recognize all the words on a given line contained within a column without any eye oscillations. The teacher can check this by placing the point of a pencil in the middle of a column and just over a given line, and then by watching the pupil's eyes as he looks at the pencil point. If he has no difficulty, the page can be divided into three columns instead of four. It must be remembered, however, that the page of reading material used for this purpose must contain, for reasons which will be discussed later in this paper, no vocabulary or ideational obstacles.

The teacher must be especially careful, too, about overdoing mechanics of this kind, for it can quickly develop into a serious stumbling block. Pupils should never become unduly conscious of eye movements lest they become absorbed in what their eyes are doing rather than what the printed words should convey. By way of example, walking seems easy as long as one is more or less unconscious of its actual complexity. But anyone who has become stage frightened has been horrified by the discovery that walking is an exceedingly difficult act. Artificially marking eye spans in a book, therefore, has only the primary purposes of convincing pupils that they do not have to focus their eyes upon every word, or indeed, upon every syllable, and also to develop the "feeling" of wider eye spans.

While weighing each word is necessary in some kinds of reading, especially that required for reading involved mathematics problems, rapid reading of popular material for the purpose of extracting the gist is impossible if each word is pondered. Nor is careful deliberation over words necessary under these latter circumstances. Perhaps reading rapidly the following adaption from a magazine article will illustrate the point:

Nazi's loss . . . fighter planes . . . fronts . . . averaging minimum . . . 700 . . . 800 . . . month, . . . roughly . . . equal . . . rate . . . fighter production. If . . . loss rate remains constant, . . . Luftwaffe . . . breaking even. If, . . . hand, . . . Allies step up . . . air offensive to . . . point . . . destroying 1200 or more . . . German fighters month, . . . Luftwaffe . . . sink . . . sight . . . 90 days . . . lack . . . planes . . . pilots.[2]

While there might be some doubt as to whether or not such exercises contribute greatly to the actual process of reading, the present writer has found that similar exercises do serve admirably to help convince high school pupils and university students enrolled in the University of Wyoming reading laboratories that skimming is both a practical skill and a valuable one.

It is necessary to caution pupils against assuming that this technique should be applied indiscriminately to all kinds of reading situations. This is only one kind to be used for specific purposes. If pupils try to use this technique for studying science lessons, they are almost certainly headed for trouble. They should be urged, instead, to practice this kind of reading on recreational materials, especially newspapers which lend themselves well to skimming the principal ideas.

Up to this point, only the groundwork of the actual teaching process has been laid. The real work begins with giving pupils practice in the skill. There is no substitute for practice under guidance.

The choice of fairly easy practice material which is free from vocabulary and ideational obstacles is of paramount importance, partly because it helps to insure the success which is necessary to instill confidence, and also because this technique is most useful in reading materials without these kinds of obstacles. To illustrate this point, the reader has no doubt noticed that reading a newspaper or this paper, for that matter, presents no difficulty at all. The eyes move across the pages smoothly and swiftly. There are no pauses or regressions while the reader puzzles out meaning. By contrast, notice the following:

The Heisenberg matrix alpha, associated with the dynamical variable alpha pertaining to a dynamical system with a Hamiltonian is the matrix representing the Schroedinger operator alpha when the basic elements are the normalized time-dependent Schroedinger eigenfunctions of the Hamiltonian.[3]

Unless the reader has a large background in physics, his eye movements quite likely became irregular when he read the above excerpt, partly because the style of writing suddenly changed and he did not correspondingly change his reading technique. Almost certainly the reader slowed down if he intended to read it with comprehension. Here are illustrated vocabulary and ideational obstacles that block swift reading. Materials such as the above are not meant to be read by most people with speed.

However, at the other extreme in the matter of choosing practice materials is that of selecting things that are obviously easy. Worst of all is choosing materials that are plainly labeled *Fourth-Grade Reader* or *Stories for Little Folks*. Most high school pupils resent the implication that they are so inept that they must be assigned to reading "kid stuff." Obviously, such a feeling on the part of the pupil is anything but conducive to a desire for self-improvement.

Unfortunately, not many practice manuals adapted to most high school levels of interest and abilities are available. Several manuals have been used quite successfully in the eleventh and twelfth grades of the University High School, but it has been the feeling of the present writer that pupils below these levels profit more by practicing somewhat easier materials.

A number of "unit" readers have been found to be a partial solution to the problem in the University High School. These are attractively produced and have none of the formidable appearance of the traditional textbook, and, most important of all, the material is interestingly presented. University high school pupils have liked to read them. It is to be regretted, however, that these little books have none of the mechanical aids which make for ease of use by the teacher who wishes to develop among his pupils proficiency in skimming. The teacher himself must count the words of each reading unit and construct his own check test of comprehension.

Timing the reading of these exercises is of major importance. Partly because speed is a mensurable tangible that acts as a motivating device, but primarily because practice in speed is necessary to attain speed. Likewise, keeping a careful record of each individual's speed and his comprehension is important, for it serves as a sort of par at which he may shoot. Only one pupil in considerably over a hundred whom

[1]Associate Professor of Education, University of Wyoming.

[2]Francis Vivian Drake, "Smash the Luftwaffe and End the War," *The Reader's Digest*, 3:53, Oct., 1943.

[3]Vladimir Rojansky, *Introductory Quantum Mechanics* (New York: Prentice-Hall, Inc., 1942), p. 342.

(Concluded on page 68)

Salaries of Colorado Secondary School Administrators, 1945-46

Stephen Romine[1]

This study was made on the assumption that of the many compensations which a school administrator receives, none probably is so important to him as the financial remuneration paid for his services. Many administrators are concerned about opportunity for professional advancement and the improvement of their financial status. Men considering entering the field of administration are interested in financial prospects, and members of boards of education ask many questions regarding salaries. It is hoped that each of these groups will be served by the data contained herein.

The figures presented in this study involve administrators of public secondary schools, exclusive of Denver and branch high schools in county school systems. Two categories of schools are considered: (1) those accredited only by the University of Colorado, and (2) those accredited both by the University and by the North Central Association. Figures for each of these groups are tabulated separately, and the factors of size of school (according to the number of teachers) and preparation of administrators are taken into account. The salaries tabulated are those listed in the annual accreditation reports for those individuals named as administrators actually in charge of high schools.

Table I reveals the range and average salaries received by administrators of secondary schools accredited only by the University of Colorado. In the majority of cases this person is also superintendent of the school system of which the high school is a part. For the group of 106 schools the salaries range from $1,600 to $4,200, with an average of $2,608. Of these, the administrators of 66 schools have a master's degree (one also has a doctor's degree) with a salary range from $1,600 to $4,200 and an average of $2,726. Except in two cases in which the men do not have degrees, the other 40 schools are in the care of administrators who have bacculaureate degrees. Salaries for this group range from $1,800 to $3,000, with an average of $2,364.

The classification of schools by size as indicated makes it possible to avoid the confusion which might result in attempting to compare the several organizational types of high schools, such as the 4-year, 5-year, and several variations of the 6-year plan. In general the data indicate that increased preparation, at least to the extent of a master's degree, is profitable. It appears, also, that administrators of larger schools may expect larger salaries, although there is considerable overlapping of salary ranges.

Of those schools accredited both by the University and by the North Central Association, 59 are administered by superintendents, with a salary range from $2,100 to $4,800 and an average of $3,268. Twenty-eight are administered by principals who are in charge of high schools only. For this group the salary ranges from $2,125 to $4,490, with an average of $3,024. It is in this group, and particularly in the larger schools, that the position of high school principal gains real professional status and is a full-time administrative job.

Table II reveals the range and average salaries received by administrators of secondary schools accredited both by the University of Colorado and the North Central Association. As a master's degree is required of the administrative head of such schools the factor of preparation is not considered in the salary tabulation. In interpreting this table the reader should not be misled to believe that the salaries involved are for all superintendents in the state, for they are only for those listed as the administrative head of the high school in their school system. Similarly, the salaries for principals are only for those serving as the administrator actually in charge of the high school. The salaries of many superintendents who have principals in charge of the high schools of the system, and the salaries of many teacher-principals and others designated as principals or administrative assistants none of whom are actually in charge of high schools, are not included.

Overlapping of salary ranges is obvious, and the correlation of salary with size of school does not appear as high as in the case of schools accredited only by the University.

It should be observed that the figures presented indicate the status of salaries only for the school year 1945–46. Therefore, one should be cautious in making predictions based on these figures alone. Some inequalities, such as those suggested by a large salary range within a single size-group of schools, probably are due to the influence of factors not included in this study. Personal inquiry of the writer suggests that salaries generally will be higher for the school year 1946–47.

TABLE I. Salaries of Administrators of 106 Public High Schools Accredited Only by the University of Colorado

Number of teachers[a]	Baccalaureate degrees[b] Range	Baccalaureate degrees[b] Average	Master's degrees[c] Range	Master's degrees[c] Average
3 to 4	$1,800–$3,000	$2,337 (26)[d]	$1,600–$3,700	$2,577 (23)
5 to 6	2,000– 3,000	2,414 (14)	2,400– 3,500	2,844 (24)
7 to 8	None		2,200– 3,450	2,712 (12)
9 to 10	None		2,820– 3,500	3,045 (5)
Over 20[e]	None		2,400– 4,200	3,300 (2)

[a]Number of teachers includes administrators, librarians, and those teachers offering classes in any of grades 9 through 12.
[b]Includes two men having no degrees.
[c]Includes one man having a doctor's degree.
[d]Figures in parentheses ( ) indicate the number of schools.
[e]There are no schools in the size groups between the 9–10 group and the over 20 group.

TABLE II. Salaries of Administrators of 87 Public High Schools Accredited Both by the University of Colorado and the North Central Association

Number of teachers[a]	Administrator in Charge of School: Superintendent Range	Superintendent Average	Principal Range	Principal Average
3 to 4	.....	$2,800 (1)[b]	None	.....
5 to 6	$2,500–$3,600	3,100 (8)	.....	$2,600 (1)
7 to 8	2,100– 4,200	3,137 (23)	None	.....
9 to 10	2,500– 4,800	3,316 (11)[c]	.....	2,500 (1)
11 to 12	3,600– 4,000	3,800 (2)	.....	2,625 (1)
13 to 14	2,700– 4,400	3,560 (5)[c]	$2,125–$3,200	$2,726 (5)
15 to 16	3,020– 3,600	3,423 (3)	2,200– 2,740	2,559 (3)
17 to 18	.....	3,600 (1)	.....	2,950 (1)
19 to 20	3,000– 3,720	3,360 (2)	.....	2,869 (1)
Over 20	3,000– 4,100	3,533 (3)	2,784– 4,490	3,320 (15)

[a]Number of teachers includes administrators, supervisors, librarians, and teachers.
[b]Figures in parentheses ( ) indicate the number of schools.
[c]Includes one man having a doctor's degree.

[1]Assistant High School Visitor, University of Colorado, Boulder.

Fairywood School

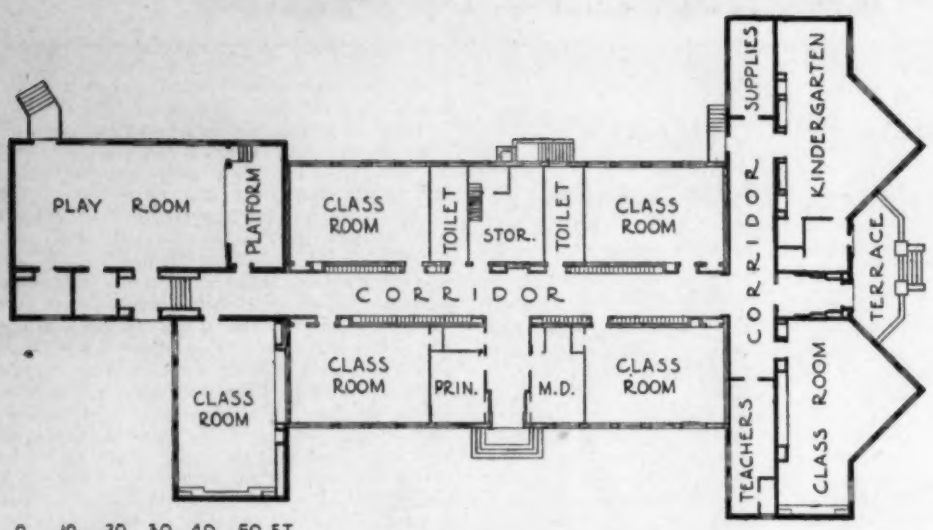
M. M. Steen[1]

The proposed additions and alterations to the Fairywood School should be of particular interest to everyone in our school system. The reason we feel that this improvement should be interesting to all school people and not only those who will be intimately identified with the Fairywood School is because we have designed a new type of classroom which will be used at Fairywood for the first time.

School buildings built in Pittsburgh, like those built in most metropolitan districts during the past decade, have shown the effect of changing educational procedures as well as changes brought about by greater community use of schools and the use of new kinds of building materials.

Our new buildings are highly modern and we congratulate ourselves on having kept pace with the best developments in planning. Nevertheless, if we stop to consider what developments have taken place in the classroom itself, we find very little that can be termed progressive or of which we can be proud. It is true we turned to unilateral window placement and thought we had made quite a discovery, only to find later many serious flaws in the idea. We vacillated on

[1]Architect and Chief of Plant Operation and Maintenance, Pittsburgh 13, Pa.



·FAIRYWOOD·ELEMENTARY·SCHOOL·
·PITTSBURGH·PA·

the question of how many lineal feet of blackboard should be furnished in each room. We made improvements in artificial lighting. All these provisions however were subordinate to the fact that we kept the same old rectangle as basic of the classroom plan.

In the new kindergarten and one primary classroom, which constitute the addition at the southeast end of the building, we have used a new type of room, new in concept mainly because of its shape. This room is a symmetrical pentagon, the base or corridor side of which starts out like the old familiar classroom. The end walls, placed at 90-degree angles to the base, extend for a distance of approximately 14 feet and then, abandoning all precedent, turn at angles of 45 degrees toward each other and finally meet to form the apex of a large triangular space. The effect of this is that the entire exterior wall or window side of the room appears as a large two-sided bay window. The advantages we hope to attain in this design are:

1. A very much higher percentage of free glass area; hence, better natural lighting
2. A departure from unilateral lighting which will not require darkening the room by drawing all window shades to kill sky glare or direct sun rays, as is often necessary in unilateral window placement
3. A more flexible room as far as use is concerned in that the same area that we have in the old rectangular room is resolved into an area with far greater width at its outer point
4. A better opportunity to provide supplemental work space in the nature of economically sized and arranged alcoves at the ends of the rectangular portion of the pentagon

In addition to the advantages inherent in the plan itself, we have designed radiant heating to warm the floors of the rooms and fluorescent flush type artificial lighting of the most modern kind.

Another departure from what we might term orthodox practice will be the introduction of color in the rooms. Linoleum floors and plaster walls and ceilings will be in attractive and we hope exciting colors.

At the northeast end of the building the addition consists of a self-contained classroom, but of the rectangular type, and a combination playroom and small assembly hall with stage.

The double-decker type of corridor lockers in the present building will be replaced with single tier lockers of convenient height for elementary school children, and the present unsatisfactory heating and ventilating system will be replaced with a modern heating and ventilating system.

Managing Student Funds

Marcella R. Kelly, Ph.D.[1]

Nonpublic revenue is a persistent problem of internal finance with which the business end of administration must effectively cope if embarrassments in financial accounting are to be avoided. Under the category of internal finance such school activities are included as: athletics, dramatics, concerts, debates, clubs, lunchrooms, candy counters, and similar sources of nonpublic revenue. Monies received from these activities have been handled in several ways, the more common current practices of which include: (1) the old laissez-faire idea, (2) the principal-responsibility plan, and (3) the board-of-education control system.

Of the foregoing practices, the first procedure is probably most ineffective from the viewpoint of sound business administration. When monies derived from school activities are left to the management of anyone without professional planning, advice, control, or interference, losses and financial embarrassments invariably result. Though some school systems still operate under the laissez-faire plan, this procedure of nonbusinesslike accounting is rapidly becoming obsolete.

The second procedure is fairly common in public school business accounting. Under this plan the principal of a building is designated the person responsible for the various monies collected in his building. This plan, too, has its weakness and disadvantages. It vests in the hands of one man, without adequate supervision, sole control, disbursement, and accounting of the nonpublic revenue involved. There have been cases where principals have delegated to a teacher or group of teachers the responsibility of handling particular monies with the result that in one school building often as many as 25 separate funds exist. These funds, though nominally under the responsibility of the principal, are actually handled by many different persons and without adequate audit. Often the funds, kept in pockets or private checking accounts, are not easy of access once the persons involved are transferred from school to school, removed from full employment, or have become through sickness or death no longer connected with the schools.

The third procedure vests in the board of education the responsibility for all nonpublic revenue accounting. This plan, when operated effectively through a subsidiary accounting procedure, is by far the most effective procedure. The Holyoke public schools employ a plan which stems from the foregoing practice. The plan, known as the William R. Peck Plan, has been in successful operation in Holyoke for well over ten years.

Prior to 1930, in Holyoke as in other communities, public school authorities had insisted upon no particular plan for the collection, disbursement, and accounting of nonpublic revenue. William R. Peck, then superintendent of the Holyoke public schools (and currently retained in that position), inaugurated what experts have referred to as a modern accounting procedure for internal finance. Provisions of the plan as outlined in the School Survey Report[2] follow:

1. The numerous bank and cash accounts belonging to the various schools, clubs, and organizations, and incident to the long list of extra-curricular and student activities conducted in the public schools of this city, and all money hereafter collected in the schools through voluntary contributions, gifts, prizes, sales, entertainment, etc., shall be grouped and deposited in one account known as the *Holyoke Public Schools Consolidated School Fund.*

2. The money belonging to each school, club, organization or activity shall be kept intact for its exclusive use and shall not be expended, transferred or otherwise disposed of without its consent, or without formal vote of the school board.

3. The superintendent of schools shall act as treasurer of the fund, and shall have charge of the actual receipt and disbursement of all money.

4. He shall maintain a complete set of records for controlling and reflecting all transactions. These records shall be subject to audit at least once every year.

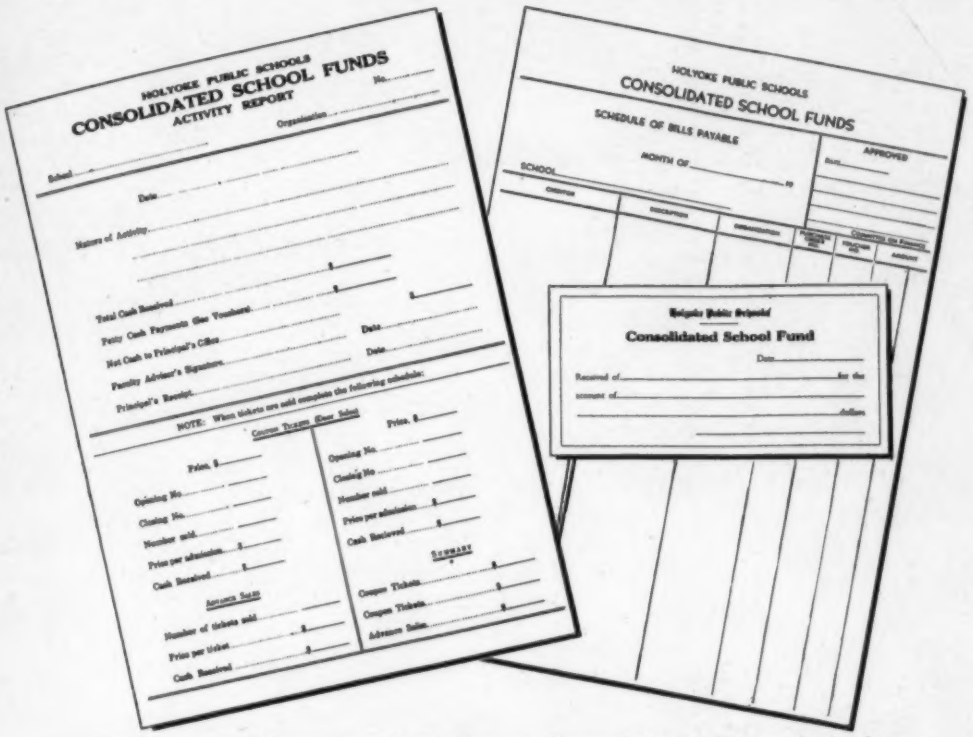
5. Disbursements from the fund shall be made only by check. Bills shall be approved each month by the school board in regular meeting.

6. Members of the fund shall be free to spend their money in their own way, and may incur debt within their ability to pay, for any reason

[1]Holyoke Public School Department, Holyoke, Mass.

[2]Report of the Survey of the Schools of Holyoke, Mass. (made by the Institute of Educational Research, Division of Field Studies, Teachers College, Columbia University), pp. 73–74.

School Administration in Action



Typical record forms used for the pupils activity funds, in Holyoke, Massachusetts, schools.

consistent with the nature of the activity represented.

7. Transfers within the fund shall be considered contrary to the spirit of this action, and shall be authorized only by vote of two thirds of the members of the whole school board in regular meeting, and after a written notice of such intended action has been served on the board at a previous regular meeting.

8. This fund shall be placed under the general supervision of the finance committee.

9. It is not the purpose of the school board to interfere improperly with the activities as they are now conducted. It shall be deemed especially reprehensible for the board to violate any of the conditions under which the money has been deposited.

10. These regulations shall not apply to money collected to pay for milk in the schools, or solicited for such temporary uses as gifts, flowers, etc., for individuals or to collections among teachers, but shall apply to all other money raised in the schools.

In execution, the details of operation are left in the hands of a general accounting agent, a subordinate in the superintendent's office. In effect, any clerk in a superintendent's office might well become familiar with the details of the plan, and with just enough supervision to safeguard records this clerk could efficiently manage the consolidated fund.

In Holyoke three business forms have been utilized to facilitate the details of accounting. The Activity Report is a printed form which the principal of a school building must file at the main office when he is depositing activity revenue with the clerk. In return for his signed statement of monies collected, the principal is given a receipt dated and signed by the accounting clerk. All bills incurred by a school are listed on a special warrant sheet and presented at regular meeting to the finance committee of the school board for approval and signature. The plan, in operation since the thirties, has been enthusiastically received by principals, teachers, and students alike. In New England it is considered one of the most efficient methods of handling nonpublic revenue in the schools.

MONTCLAIR SINGLE-SALARY SCHEDULE

The school year 1945–46 was chiefly important in Montclair, N. J., because it saw the beginning of the use of a single-salary schedule for teachers. This schedule provided beginning salaries of $1,600, $1,700, and $1,800 for bachelor's degree, master's degree, and one year of training beyond the master's, to teachers without experience, and maximums running from $3,800 to $4,500, obtained through yearly increments of $100. In addition, a cost-of-living bonus of $420 a year is paid, up to a maximum of $5,000. An advisory committee works with Supt. A. L. Threlkeld in the improvement of the salary schedule.

SCHOOL GROWTH IN BARBERTON

The industrial-arts classes, at Barberton, Ohio, during the past year, made swings for the eight elementary schools. The swings are four-place each, and are constructed of welded pipe.

An adult education program was inaugurated, with classes conducted two nights each week.

During the year, 12 new courses were conducted in the second semester, including home financing and budgeting, parents' study program, English usage, retail selling, plant newspapers, good music club, and millinery.

A summer school has been established on a strictly remedial basis.

The parent-teacher association carried out two ambitious programs, including the installation of 16mm. sound projectors in eleven schools, and a plan to establish three new libraries.

In November last, the citizens approved a proposal for $1,000,000 to be used for the construction of new school buildings. A building committee, comprising principals, teachers, supervisors, representatives of the board, the superintendent, and members of the parent-teacher organization was appointed. This committee was assigned the task of locating and acquiring a site for an elementary school and a site for a junior high school, and preparing plans for two elementary schools.

During the year teachers' committees were at work on a project to reduce the number of subjects in the elementary curriculum and to place more emphasis on basic subjects.

DISTRICT OF COLUMBIA SCHOOLS

The commissioners of the District of Columbia have received a building program to meet the critical needs of the school system as these appear to Engineer Commissioner Gordon R. Young. To end double sessions and to replace outworn buildings will require $34,550,000. An additional $1,000,000 is needed for a school headquarters building. General Young has proposed the immediate completion and new erection of 28 elementary schools, many in Negro neighborhoods, to cost $20,000,000 and to handle overflow attendance.

As a second priority it is recommended that $10,000,000 be used for modernizing old buildings, for providing assembly halls, gymnasiums, play areas. Fourteen elementary buildings, two junior high schools, two vocational schools, and five senior high schools are in need of enlargement and modernization. A central warehouse and repair shop is also needed.

SCHOOL GROWTH IN MINOT

► Minot, N. Dak. Under the direction of Supt. P. A. Miller, the educational program has been enlarged and improved. Industrial-arts work has been resumed in the senior high school after a lapse of 15 years. Plans are being made for its extension into the junior high school. Physical education has been completely reorganized with the introduction of a new curriculm, to include all grades up to and including the tenth grade. The course in social studies has been revised to serve as a basic course throughout the 12 grades. The work is applicable to all pupils. Art and music courses are part of the reorganization program. The purpose is to offer opportunity to every pupil at the upper levels to participate in the work.

During the school year 1945–46, through the efforts of the school authorities, a recreational program was set up and placed in operation, under the supervision of a trained leader working full time. The initial activities were confined largely to the eight gymnasiums of the city. With the close of the schools, seven playgrounds were set up, including activities for preschool children through the adult stage. In addition to the regular playground activities, tennis, softball, and baseball are offered. Fifteen leaders are employed at the present time, working five days a week. The project is supported by interested civic organizations whose contributions to the work have been liberal.

WOODBURY ADOPTS NEW SALARY GUIDE

The board of education of Woodbury, N. J., has approved a new salary guide, effective July 1, calling for a minimum of $1,500 and a maximum of $3,000, plus a continuing bonus amounting to approximately 15 per cent of the basic salaries. Additional remuneration for extracurricular activities ranges from $50 to $200, which includes nonathletic activities.

► The board of education at Hastings-on-Hudson, N. Y., has adopted a single-salary schedule for 1946–47, with minimum and maximum salaries based on years of service. Teachers with three years' training will begin at $2,000 and work up to a maximum of $3,000; teachers with four years' training will be paid a minimum of $2,300 and a maximum of $3,300; those with five years' training will be paid a minimum of $2,500 and a maximum of $3,600. The single-salary schedule replaces a separate schedule for elementary and high school teachers, which had been in effect since 1928.

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Edited by
Wm. Geo. Bruce and Wm. C. Bruce

BETTER PAY FOR TEACHERS

TEACHERS' salaries have been rising in every community, but they have not yet reached levels which are attracting sufficiently large numbers of veterans to return to their former jobs in the classroom. And the younger veterans whose education may be continued under the liberal G.I. provisions for college education are not flocking to the teachers' colleges. In comparison with other professional schools, the teacher training institutions are like forgotten men, with their overlarge staffs and only partially filled lecture rooms.

It would be interesting to explore the question to what extent the techniques of the teachers' associations in their quest for higher salaries, uniform schedules, and greater security have contributed to the situation. Newspaper articles and editorials, professional magazines, the appeals to local school boards and to the state legislatures, the campaign for federal aid — have all emphasized the poverty of the teachers' lot, the meanness and niggardly relations with the school boards. The very rare failures of school boards to re-elect a teacher or a superintendent, and the comparatively few political situations in a few large cities and some smaller towns have monopolized the newspaper and radio accounts of the teaching profession. Only rarely have all the public requests for recognition of teaching spoken of the professional and personal satisfactions of teaching, of the security and continuity of the job, of the opportunity for advancement, particularly for men, of the highly pleasant surroundings of the modern school plants, and of the opportunity of associations with cultured fellow teachers, and finally of the thrilling challenge of helping build young people into educated men and women.

We fully agree that teachers' salaries are not as high as they should be, that in certain rural areas, smaller towns, and even certain states, they are disgracefully low, and that some teachers and school executives are the victims of politics. On the whole we feel that it is time to place the campaigns for the recognition of the teacher on a positive basis. It is time to say that teaching is the most satisfying of the professions and makes less demands of the troublesome, health racking, kind than any other profession. The teacher suffers practically no competition from his professional fellows except when he is seeking an administrative promotion. It is time to say that the school boards are the kindest and most considerate of all public employers, and that the school executives are in a class apart in their unpolitical and unselfish solicitude for their teaching staffs. It is time to say that the tenure legislation has splendidly protected the teacher to the point that it is extremely difficult to dismiss the tactless near-competent who has misused his political or academic freedom. It is time to say that teachers are favored like no other group of public employees in their allowances for illness, and in their old-age pensions.

The teachers' organizations themselves have the responsibility for changing much of the attitude of the public toward the teacher and for encouraging young people to continue their education toward classroom work.

SCHOOL BOARD MINUTES

THE recording of the transactions of many school boards has not changed materially since the first New England school committees recorded the presence and absence of members, the resolutions and motions passed, the appointment and wages of the schoolmasters, the length of the terms and the subjects taught, and the barest facts of financial and scholastic statistics. Too many school boards still stick to the bare legal record which in some cases conceals rather than explains the meaning of board actions.

In addition to a legal record of its transactions, the present day school board expects its secretary to so write his minutes that they provide a rather complete history of the board's policies and acts; that the recorded facts allow of future interpretation of "the mind of the board" and the purposes it sought to achieve in a given matter, and finally that the records constitute a public relations document which will build good will for the schools as an important social and governmental agency. Now these purposes cannot be achieved by the secretary himself: his duty is to faithfully record the transactions of the board. His minutes must be accurate, complete, in every way objective, and truthful. If he writes into the record his own interpretations or explanations of which has been said or done, the minutes, as an official document, are suspect and proportionately valueless.

A board may seek completeness and accuracy in reporting the opinions of its executives and members by taking stenographic reports. Or it may ask the secretary to make his notes so complete that they approach a shorthand report. When the latter plan is followed the secretary is certain to be criticized for recording the unpleasant and even disgraceful remarks made in the heat of debate. A New England secretary did this recently but found it advisable to resign when his zeal was criticized and his minutes expurgated as undesirable for the permanent record. When a fulsome record is sought, it is quite justifiable to strike the numerous thoughtless questions and irrelevant remarks which consume valuable meeting time and which would waste space in the printed record.

To help the secretary achieve the full purpose of board minutes, the superintendent and the members should so phrase their reports and preface their motions that the underlying situation and the purposes to be achieved are briefly but actually stated. This method of presenting business to the board will require some thought and will bring out motives and purposes. It will require full justification of proposals in terms of the educational welfare of children and of the community. But it will provide a record upon which future administrators and boards and historians of the schools can place full reliance. If need be the courts can use such records. As public relations documents there could be no finer materials.

SCHOOL BOARDS AND THEIR STAFFS

IF a statistical test were applied to the current situation, the relations of school boards to their teaching staffs would rate very nearly 99.75 per cent satisfactory. Evidence of this is found in the fact that the N.E.A. National Commission for the Defense of Democracy Through Education has found only six or seven school districts, among the more than 5000 communities of greater population than 1000 persons, in which one or more teachers or administrators have been dismissed or demoted unfairly. In several cases in which local professional groups or individual teachers were complainants against local school boards, the Commission has taken no stand.

If present conditions in city school systems are compared with the situation at the turn of the century, the enormous progress for the elimination of politics, personal favoritism, nepotism, and even unfair rivalry among teachers may be appreciated. We have come a long way, in the cities at least, since the time when the school board members, as representatives of local wards, nominated the teachers and dictated to the superintendent who should be appointed to the schools under their immediate patronage. We have come a long way in preventing unfair transfers, demotions, and dismissals of teachers and administrative officials. More and more the superintendent has a free hand, within established policies and local educational philosophy, to employ and assign teachers, to set up the personnel policies, and to dismiss or retire members of the staff who are no longer giving efficient service. It is true that in every community there are some shortcomings in the relations of school boards and their staffs, but it is likewise true that these difficulties and the failures of the boards arise from human shortcomings, from traditions that have not been wholly corrected, and finally from professional and personal failures and limitations of teachers themselves. In schools as in most human affairs the men and women most concerned are still the chief cause of many of their troubles.

Progress in the relations of school boards and teachers must come from still closer co-operation, more sharing of difficulties and problems, and a greater determination to make the welfare of the children the first consideration in all efforts.

WAR SURPLUS MATERIALS

THE distribution of war surplus materials, so far as education is concerned, has been extremely unsatisfactory, particularly since Regulation 14 was first promulgated. There is

good reason for the question whether education has not been bypassed, and whether the policies adopted by the War Assets Administration have not failed to take into account the genuine benefits which would result from a policy of nominal pricing of surplus materials which could be used to best advantage by educational institutions.

A statement published by the War Assets Administration in June contained the following:

A broad program is under consideration for the disposal of selected items to educational institutions on a nominal price basis. These items will be taken largely from long supply; slow-moving or virtually nonsalable items; residual products of which no commercial utilization has been discovered but which may be appropriate for educational use; items which have no commercial value; small and odd lot groups of items which would be uneconomic and impracticable to sell through regular procedures. In this program it is anticipated that it will include such categories as machine tools, laboratory equipment, and electronics. WAA is adding an educational specialist to each of its regional staffs to locate the surplus school officials need.

This program has had the hearty support of the U. S. Office of Education but has not yet gone into effect. On July 2, a Surplus Property Committee representing 21 national educational organizations adopted a statement in which the following significant paragraph appears:

The major barrier to acquisition of surplus property by education is a price policy which places surplus items essential to educational use beyond the reach of all but a few of the larger schools and colleges. This policy does not reflect the extent of the benefits "which have accrued or may accrue" to the United States from the use of such property by educational institutions. Perhaps the next most important barrier is the failure to provide estimates of kinds and quantities of surplus property available to education. It is the firm belief of the committee that a policy of nominal pricing, namely cost of care and handling and definite information as to the kinds and quantities of surplus property applicable for educational purposes would not only be conducive to but would assure orderly and rapid disposal of surplus property to education.

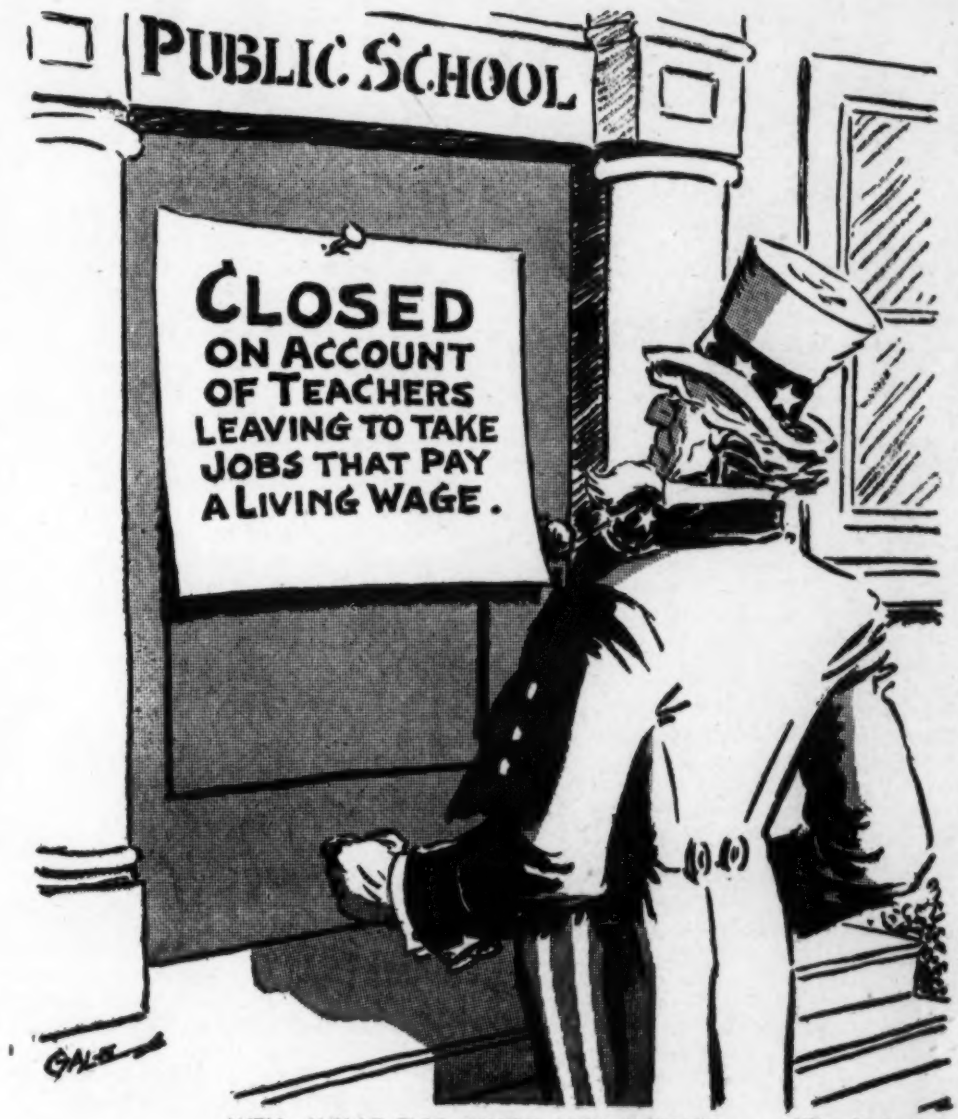
It would be well if the school authorities would make contacts with their representatives urging the fair and reasonable interpretation of regulations so that immediate action could be taken to help relieve the essential needs of educational institutions for equipment, supplies, and other items essential to an adequate school program.

SCHOOL EMPLOYEES AND CREDIT UNIONS

The N.E.A. Credit Union Committee is engaged in a very worth-while movement for expanding the advantages of Credit Unions to teachers in all communities where a sufficiently large group can be found to establish a Union. As in so many of its movements, the N.E.A. is limiting itself strictly to teachers and is not including the nonteaching staffs of boards of education.

It would seem that janitors, clerks, repairmen, and other school district employees might very well be included in the Credit Unions to be established by and for teachers. One of the first principles of Credit Union organization is that the membership should include all persons who belong to a definite economic or social group — be that a business, a factory, a church, or a labor union. School employees — whether they teach or perform other work for the schools — belong to a definite group, with a single source of income and well-established reasons for group loyalty and unity.

If teachers were wise they would include nonteaching personnel in as many of their group enterprises as possible. School boards are not acting outside their proper sphere when they insist that the teachers should include the nonteaching staffs in their socially protective undertakings.



WELL, WHAT ELSE COULD YOU EXPECT? — *Milwaukee Sentinel*

SCHOOL WORK-STUDY PROGRAMS

A bare beginning has been made in the educational use of work programs carried on by co-operation of high school authorities and employers. A recent study by the National Child Labor Committee makes clear that a work-study program cannot be successful unless it is conducted with educational purposes in the forefront:

"Continuance or extension of work-study programs must inevitably depend on the economic conditions prevailing at any given time. Students must not be provided with part-time paid employment at the expense of primary wage earners. Wage scales must be maintained and, in periods of unemployment, work experience of a different type may have to be substituted, such as unpaid participation in school or community projects which do not compete with private industry. Part-time employment in school-work programs, however, can be a factor in keeping out of the full-time labor market some students who would otherwise drop out of school as soon as they reach the end of the compulsory school attendance age.

"The evidence obtained in this study of work-experience programs organized during the war years suggests: (1) that such programs, if they are to be continued, will need careful evaluation and the adoption of definite procedures and safeguards that could not always be provided in the many rapidly developed, and often large-scale, programs that were set up under wartime pressures; and (2) that such programs, though they should not be regarded as the solution of all the problems in secondary education, may become one of the many resources that will be developed to provide more meaningful educational experience for secondary school students than the usual school curriculum now does."

New Floors Out of Old Ones

Dave E. Smalley[1]

Only in the past 15 years has floor maintenance been a problem to schools. Previous to that time so little thought was given to it that it presented no difficulty at all. During the summer months the wooden floors were drenched with oil, and after the fall term began, nightly or semiweekly sweepings constituted the whole program of care. That program, however, was an advancement over this writer's school days when even the oil was omitted.

A few schools still use floor oil because their wooden floors are so thoroughly saturated they seem to be beyond reclamation. A large and otherwise good school building in this writer's town was like this, but last winter it caught fire, quickly converted itself into a roaring furnace and burned itself into a pile of rubbish. The fire companies of two cities could not compete with the three oil-soaked floors.

The purpose here is to offer a remedy for such floors and at the same time give suggestions for reclaiming other floors that have lapsed into various stages of deterioration. If the recommendations are "old stuff" it is because the reader is an experienced maintenance man. Even so, there may be some reminders herein that will be of value, and in any case, bear in mind that many new people have entered the floor maintenance field during the past three or four years.

The war did things to floor maintenance just as it did things to every other phase of our living. It brought new people into this work, many of them with little or no previous training, and it brought still further difficulties by a scarcity of even untrained workers. Therefore, during the war years, millions of square feet of normally well-cared-for floors have suffered from both faulty methods and neglect.

It is possible now, in most cases, to reclaim these floors, not only to give them again that well-groomed, newlike appearance, but to add more years to their usefulness.

While it is not possible to cover all the details in this short article, enough can be told to give essential directions for the procedure and to implant ideas for more complete programs.

Oiled Floors

Beginning with oiled wooden floors, the surface oil can be removed by a thorough scrubbing with alkali, preferably trisodium phosphate. To do this, wet an area of floor not more than ten feet square and sprinkle on the TSP liberally. When the powder seems to have dissolved fairly well in the water, scrub with a floor machine. If you are using enough alkali and water a dark lather will form, sometimes rolling up liberally. Continue scrubbing over the same area for several minutes, adding a little water if the lather subsides, and then squeegee up the dirty solution quickly before it can settle back into the floor. After which, repeat the operation on another area, and so on, until you have covered the entire floor.

Now rinse the floor well with clear water and if you have time, a second rinsing is often advisable. Then let the floor dry. When the floor is dry, "salty" spots may appear because you failed to rinse well and all the alkali was not removed. Sometimes wet mopping will suffice, but if too much of the alkali remains, a more complete job of rerinsing will be called for.

The floor thus cleaned should be allowed to stand for a week or so, during which time it can be walked upon. At the end of that time, and especially if oil had been used over an extended period, spots of embedded oil will appear on the surface, having followed up the cleaned grain of the wood just as oil rises in the wick in a lamp. Another scrubbing with the alkali is now in order, repeating the original process.

Usually the second cleaning is sufficient, though in extreme cases a third may be advisable. Or in lieu of the third scrubbing, you may apply a coat of oil sealer, which is a tough type of lacquer. It will sink into the pores of the floor and, because it is not miscible with the embedded oil, it will seal in the latter.

These quick drying, lacquer-type sealers are not sufficiently durable as a finish in themselves. Therefore, a regular floor sealer should be used over them. The best floor sealers are of the "long-oil" varnish type and should be made only from phenolic (Bakelite-type) resins. The phenolic resins are tough and durable and are almost immune to acids and alkalis. The "long-oil" varnishes are slow about drying, requiring from 8 to 12 hours, but slow drying makes them tough and pliable. Quick drying seals ("short oil" varnishes) are better adapted for furniture, woodwork, etc., where friction is limited or nil, but they will soon disintegrate under the pounding and scraping of feet.

For the best results in the use of a floor sealer, steel wool each coat when dry to remove the gloss. This insures a better bond between the subsequent coats, and in the case of the final coat, gives a better, more durable finish. The high surface gloss of even the best of the sealers is comparatively short-lived under traffic, soon becoming dulled in high lanes of traffic. Therefore, remove all of this surface gloss uniformly with steel wool as soon as it is dry and then apply a good floor wax to restore the gloss. This provides a surface much smoother and easier to sweep or dust, and since wax can be quickly replaced when it wears off, the floor can be kept shining uniformly for an extended period.

Sealing Other Floors

The foregoing instructions for using sealers on reclaimed oiled floors also apply to any wooden floor, though the preparation of the floor naturally differs.

For a perfect job, the floor should first be sanded and, if oak, it should then be "filled." Maple and other close-grained floors do not require "filling" but are ready immediately for the sealer.

If the floor has been previously sealed and is in a fair condition, remove all traces of floor wax and apply the new coat of sealer. Better adhesion is assured by first steel-wooling the old sealer.

If there are "raw" spots on the floor where the old sealer has worn through, these spots should be patched with the new sealer before the entire floor is gone over. "Feather out" the edges of the patch to avoid "laps" and when dry go over the whole floor as previously directed.

Linoleum Floors

Probably the floor which suffers most from abuse or neglect is linoleum. Unless it is in the last stages of deterioration, however, it can usually be reclaimed.

In those last stages it can sometimes be made to last one more year by applying floor sealer or paint. In no other instance should any kind of varnish or paint be used. These are rigid finishes that gradually break under traffic and because they cannot be removed without destroying the linoleum, they are good only for a comparatively brief period.

If the linoleum is dirty and stained, wash it with a neutral (neither alkali nor acid) soap, scrubbing with a floor machine, but being careful not to let the water seep under the edges. Water under a linoleum causes the burlap backing to decay and the linoleum itself to break apart.

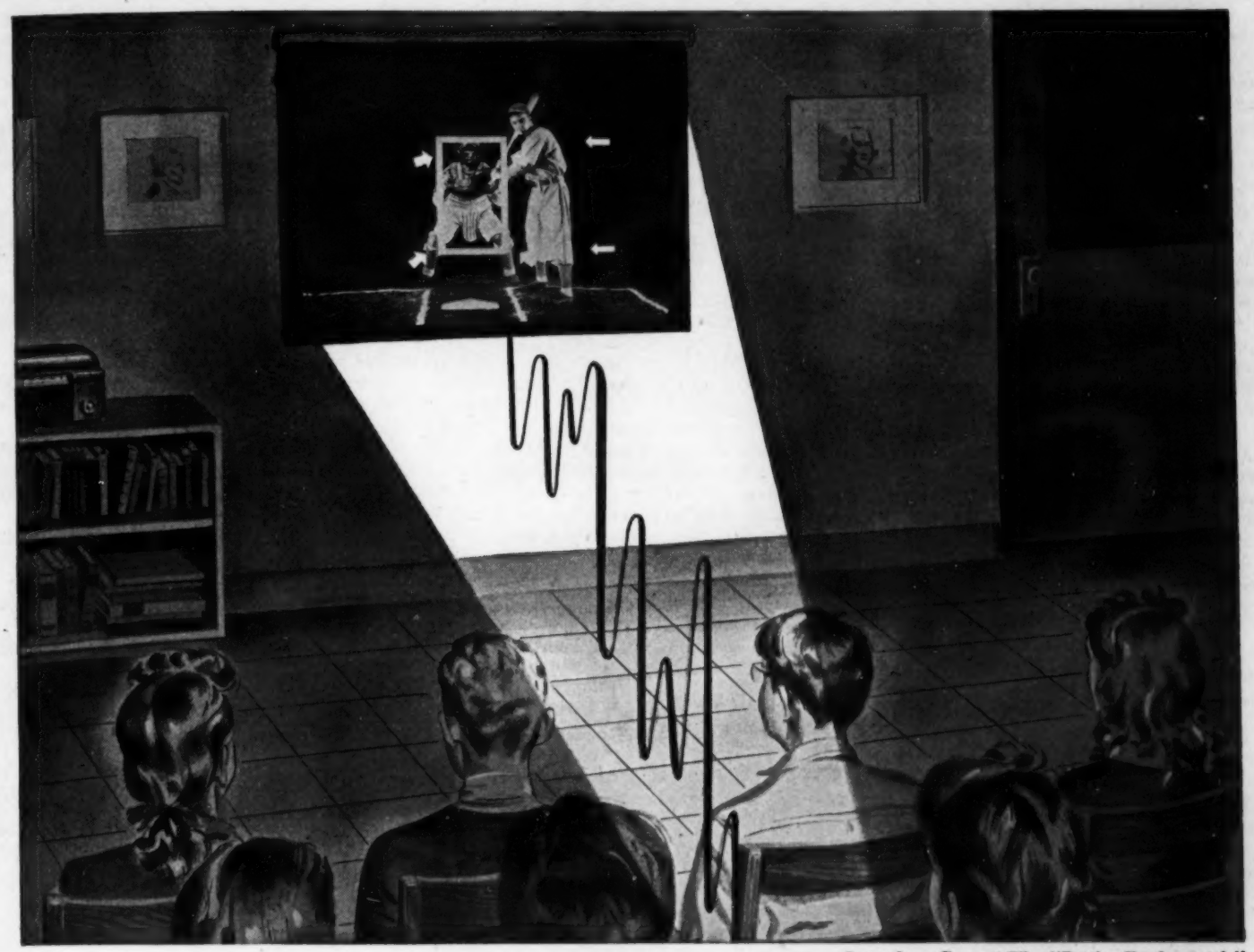
In no case should an alkaline cleaner be used on linoleum for it is almost certain "death" to the covering. Linoleum is made of linseed oil and ground cork, and alkali and linseed oil make soap.

If the neutral soap fails to clean the linoleum satisfactorily, it is likely due to dirt and stain embedded in a wax coating. The only way to successfully remove an accumulation of water-wax emulsion is with a mild abrasive cleaner. The common kitchen cleaners are usually satisfactory if they are not alkaline, but a homemade abrasive cleaner can be made easily by sprinkling powdered pumic stone over a soapy area and scrubbing with a floor machine.

Abrasive cleaners are by no means recommended as a regular maintenance method for linoleum, but merely for removing occasional

(Concluded on page 54)

[1]Specialist in Floor Finishing and editor of "Floor Craft," Brazil, Ind.



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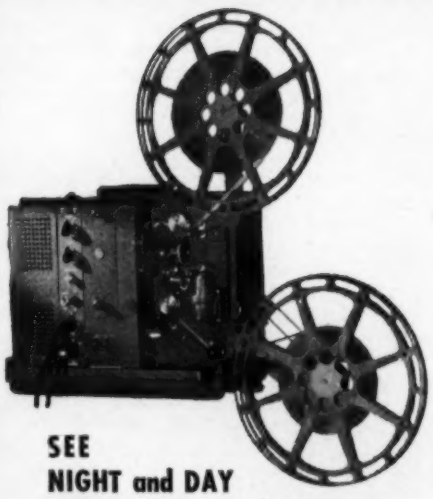

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NEW FLOORS OUT OF OLD

(Concluded from page 52)

wax accumulations. Always rinse well to remove any residual "grit."

If the linoleum is of one color and is faded, either uniformly or in spots, it can be restored fairly well with wax stain of the required color. This is a regular, solvent type liquid floor wax containing analine dye, but in the wax base it is possible to apply the dye evenly and without spotting. It is quickly and easily applied just like any other liquid wax, and is then buffed to a polish when dry.

Waxing is the best maintenance treatment for all kinds of linoleum and is recommended by all the linoleum manufacturers. It eliminates most of the mopping, and since linoleum manufacturers tell us that linoleums seldom wear out but are usually "washed out," the less water used the longer a school floor covering will last. Also, there is the factor of protection that wax provides against the friction of traffic. It acts as a limited lubricant and because friction promotes rather than destroys the polish, wax is a "natural" for all kinds of floors.

Asphalt Tile

If you have asphalt floors they may have grown dull and "muddy" from lack of proper maintenance. A good scrubbing with water and trisodium phosphate will clear them up, unless they are discolored from accumulations of floor wax. In the latter case an abrasive cleaner will again be necessary, though soaps occasionally loosen the color pigments in asphalt tile. Use the abrasive cleaner no more than is necessary to remove the old wax and then rinse well.

As in the case of linoleum, too much water should not be used on an asphalt tile or on any other soft or flexible covering which is cemented to the floor. Excess water seeps under the edges and tends to loosen the covering from the floor.

Missing or broken tiles can usually be replaced. The maker of a given floor should be able to supply them and almost anybody can cement them in place.

When your asphalt tile floor is clean and all tile once more intact, wax the floor with a good water wax. Of course, you must never use a solvent type wax or you will dissolve the tile. Daily dusting and occasional machine polishing will eliminate the need of mopping and extend the life of the wax coating. It is not necessary to rewax as long as the floor responds to polishing with a machine. Good waxes will stand many buffings and therefore prove more economical than cheap waxes that wear out quickly.

Terrazzo Floors

If your terrazzo floor has become dull or chalky, it is due, most likely, to one of three things: You have been using (1) a lacquer-type terrazzo sealer, or (2) too much floor wax, or (3) an alkaline cleaner. In the first two cases you have a deteriorated film that must be removed. Wood alcohol or the denatured will be necessary to remove the sealer, and a stiff brush under a polishing machine will greatly facilitate the job. As fast as the old seal is dissolved, however, it must be picked up with mops or rags or it will dry again on the floor.

The abrasive cleaner, mentioned earlier, will be needed to remove the old floor wax. After which rinse and rewax.

If you have been using an alkaline cleaner, your terrazzo is probably "dusting," which means a powdery substance is constantly forming on the surface. If this condition is allowed to continue indefinitely, it may prove disastrous to the floor. Stop using alkali and, except for removing old wax, do not use an abrasive cleaner. Begin at once to clean the floor daily with a good neutral soap — preferably a liquid soap since jelly soaps are slow to dissolve in water and often leave a soap scum on the floor.

Several washings with a neutral soap should stop the dusting, after which apply a protective coat of good floor wax.

Rubber Floors

Damaged rubber floors call for treatment in reverse to that recommended for terrazzo. Of couse, accumulated wax can be removed only with an abrasive cleaner, but soap should never be used. Use only alkalies to clean a rubber floor.

If a rubber floor is soft and the tiles are warped, you have probably been washing the floor with soap or possibly you have been using a solvent type wax. Either material is injurious to rubber. Start cleaning with a mild alkali and buff (when dry) with fine steel wool. Then wax with a good water wax.

Concrete Floors

Concrete floors also give occasional trouble by "dusting" but usually this is caused by an imperfect job of mixing when the floor was laid. In which case a hardener may be necessary. A solution of sodium silicate (waterglass) in water often remedies such trouble. Fluosilicate of soda is better but not so easily obtained. Mild cases of "dusting" can sometimes be cured by several washings with neutral soap.

Though a concrete floor can be made attractive with a wax stain, such as recommended for faded linoleum, many prefer the more permanent finish of paint.

If the floor has been painted before, be certain all floor wax and loose paint are completely removed or no paint will adhere. Wax on a floor is to a sealer or paint what grease on the skillet is to the egg.

Old paint should be scarified or at least dulled by steel-wooling or light sanding before applying a fresh coat. This insures a better bond for the new paint. Also, better final results are obtained if, before painting the whole floor, you patch-paint the worn spots, feathering out the edges to prevent conspicuous laps. Let the patches dry and then go over the entire floor.

Before painting an unpainted concrete floor, the latter should be etched with a 10 per cent solution of muriatic acid. Apply the solution with a mop and when the floor stops effervescing, rinse it well. When dry it it ready for painting. Etching causes tiny pits in the floor surface in which the paint coating finds anchorage. Waxing will save the painted surface and that, the paint makers tell us, "saves all."

In choosing a paint for concrete, select one made either from phenolic or rubber resins. These resins, which form the foundation of the paint, are practically immune to the natural alkali in concrete, whereas ordinary floor enamels soon sccumb to the alkaline reaction.

In the foregoing paragraphs an attempt has been made to give briefly the simplest methods for reclaiming those floors most widely found in schools. There are also cork floors which should be treated about the same as linoleum; marble floors the same as terrazzo, and mastic the same as asphalt.

It is hoped that enough has been told or suggested to serve most purposes. If any additional or more specific information is desired, a letter addressed to the author, in care of this publication, will bring it cheerfully and without obligation.

JAMES J. BALL RETIRES

James J. Ball retired on July 9 as assistant superintendent of schools in charge of business management of the Denver public schools.

Mr. Ball was born in Sligo, Ireland, in 1881, came to America in 1887, and was educated in the Denver schools. He was appointed in 1918 as chief engineer in charge of buildings and school supplies and purchasing. In 1927 he was advanced to assistant superintendent in charge of business management.

Mr. Ball has seen the business division of the Denver schools grow from a small organization employing 150 clerks, janitors, and engineers, to a staff of 523 and including a purchasing agent, a superintendent of janitors, a large staff of accountants and clerks, janitor-engineers, school-bus drivers, maintenance mechanics, etc.

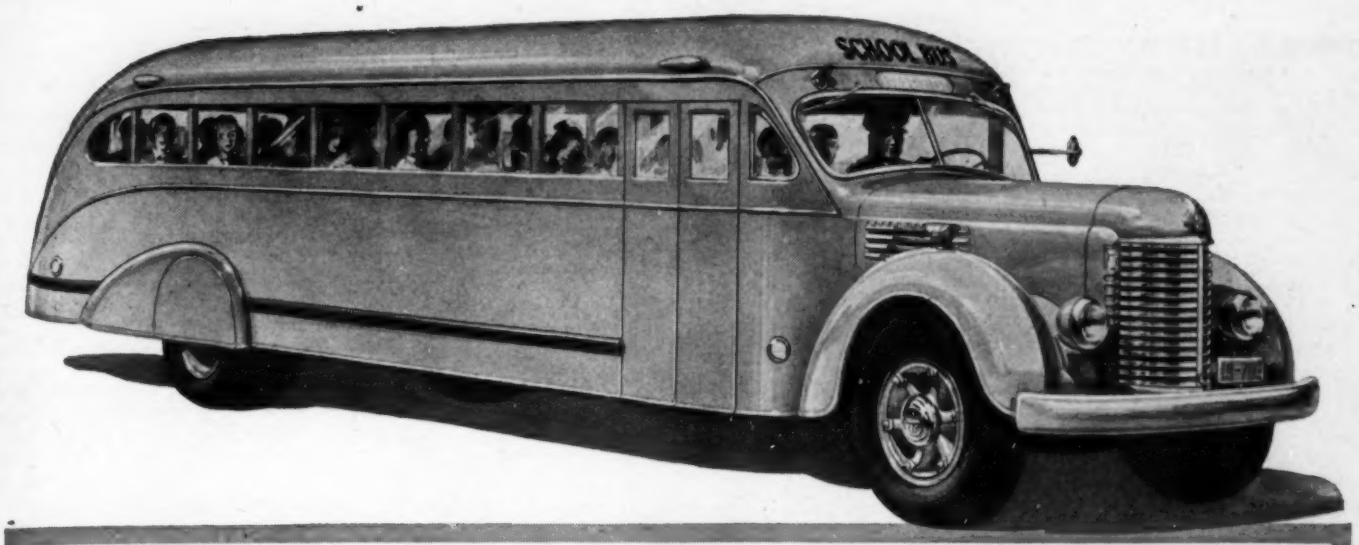
Mr. Ball has been responsible for the development of a complete personnel program, for the employment, training, promotion, and pay of nonteaching personnel. He has seen the development of the purchasing functions of the schools from a very simple method of buying on bid to a carefully balanced program of budgeting, of technical preparation of specifications, of testing fuel and other materials, etc.

Mr. Ball will continue to make his home in Denver.

CONSOLIDATION OF DISTRICT SCHOOLS AT BARRINGTON, ILLINOIS

A campaign was recently conducted in Barrington, Ill., for the consolidation of High School District 123 of Cuba township and the grade school Dist. No. 4 at Barrington.

Up to June 29 a total of three major consolidations had been effected. These included the organization of a large community high school district, the consolidation of a new high school district with the protective high school district to the north of Barrington, the consolidation of three elementary schools adjacent to the village with the village. An election was later held to select a board of education for the new community consolidated elementary school. The voting was very enthusiastic and the proposals were carried by a large majority. The success of the campaign was attributed to the fine publicity program which was carried out to inform the voters of the districts on the facts about the consolidation project.



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School Law

School District Government

A school board has no power to overrule the determination of a school district meeting in a matter which is not specifically conferred upon the board by statute. — *State ex rel. Wiedenhoft* v. *Anderson,* 22 Northwestern reporter 2d 516, Wis.

A school district board is not inherently superior to the annual common school district meeting which elects the board. Wis. statutes of 1943, § 40.16(1). — *State ex rel. Wiedenhoft* v. *Anderson,* 22 Northwestern reporter 2d 516, Wis.

A person attacking an action of the school board concerning matters committed by law to the board's discretion has a heavy burden inasmuch as the courts are not prone to disturb a school board's decision. — *Farris* v. *Swetts,* 46 Atlantic reporter 504, 158 Pa. Super. 645.

The Pennsylvania courts are without jurisdiction to interfere with an action of the school board concerning matters committed by law to the board's discretion, unless the board's conduct is arbitrary, capricious, and to the prejudice of public interest, and lack of wisdom or mistaken judgment on the part of the board is insufficient to warrant such interference. — *Farris* v. *Swetts,* 46 Atlantic reporter 2d 504, 158 Pa. Super. 645.

School District Property

Where the only contract for the sale of paint between a school district and a corporation furnishing paint to a school district was a letter or letters from the superintendent of schools, the corporation could not recover from the school district for the paint since the superintendent was not authorized to enter into contracts which would be binding on the school board. — *Consolidated School Dist. No. 6, Dewey County* v. *Panther Oil & Grease Mfg. Co.,* 168 Pacific reporter 2d 613, Okla.

School District Taxation

Contracts, executed or executory, entered into in one fiscal year and seeking to bind a school district's revenues of a succeeding fiscal year, are void under the Oklahoma statutes of 1941, art. 10 § 26. — *Consolidated School Dist. No. 6, Dewey County* v. *Panther Oil & Grease Mfg. Co.,* 168 Pacific reporter 2d 613, Okla.

Where a contract of June 11, between a corporation and a school district, provided for the sale of goods to be shipped "as soon as possible" and that the order was subject to cancellation, and goods were not delivered until after July 1, the corporation, after delivering the goods, could not recover from the school district for the goods, since the contract could only be executed, completed, and paid for within the fiscal year. Oklahoma statutes of 1941, art. 10, § 26. — *Consolidated School Dist. No. 6, Dewey County* v. *Panther Oil and Grease Mfg. Co.,* 168 Pacific reporter 2d 613, Okla.

The Pennsylvania taxing statutes plainly indicate that the legislature did not intend that land purchased by county commissioners for unpaid taxes should be tax exempt during the period of redemption. 72 P.S. §§ 5878a *et seq.,* 5971 q. — *Appeal of City of Erie,* 46 Atlantic reporter 2d 592, 159 Pa. Super. 18.

A title acquired by a Pennsylvania county at a tax sale is not absolute where the right to redeem is present and such land is not "public property" within the ordinary accepted meaning of the term nor within the statute exempting "public property" from taxation. 72 P.S. §§ 5020–201 *et seq.,* 5878a. — *Appeal of City of Erie,* 46 Atlantic reporter 2d 592, 159 Pa. Super. 18.

The Pennsylvania Court of Common Pleas had authority to review a school board's reduction of the school tax collector's commission from 4 per cent to 2 per cent, and to direct the board to pay the collector a fair, reasonable, and just compensation on the basis of a 4 per cent commission which should not exceed $2,400 in one year. 24 P.S. § 605. — *Farris* v. *Swetts,* 46 Atlantic reporter 2d 504, 158 Pa. Super. 645.

School Building News

APPROVE NEW SIX-YEAR BUILDING PROGRAM

The New York City board of education has approved a six-year school-building program for 1947–52, calling for the construction of 251 new schools, additions, and modernization projects, costing a total of $350,000,000. The six-year program is designed to eliminate overcrowding, to replace obsolete buildings, to modernize existing class 1A structures, and to provide adequate play space. The first 97 projects are those that appeared in the 1946 capital budget as the board's postwar building plans.

SCHOOL BUILDING CONTRACTS

According to Dodge, contracts were let in 37 states east of the Rocky Mountains, for 232 school buildings during the month of May. The cost was $25,261,000.

SCHOOL-BOND SALES

During the month of June, 1946, school bonds were sold in the amount of $29,339,000. The average yield as of July 1 of twenty bonds was 1.41 per cent. The largest sales were made in Arizona, $3,198,000; California, $5,593,000; Georgia, $3,750,000; Michigan, $2,825,000; Ohio, $2,493,000; Texas, $2,080,000.

MILWAUKEE SCHOOL-BUILDING PROGRAM

The Milwaukee board of school directors has accepted for its school-building construction program in 1951 and 1952 the new North Side Technical High School, to cost $3,000,000; an elementary school, to cost $600,000; additions to the Boys' Technical High School, to cost $500,000; and an addition to the Custer High School, to cost $500,000.

OHIO HELPS REHABILITATION

How to meet requests totaling $6,438,557.83 for needed school rehabilitation with an appropriation of $2,000,000 is one of the problems facing the Ohio State Department of Education.

Dr. Clyde Hissong, State Director of Education, has revealed that last year the legislature appropriated $2,000,000 for the biennium 1945 and 1946 to help the Ohio school districts having less than $6,000 in tax valuation per pupil rehabilitate their school buildings. A total of 390 of the 424 eligible school districts submitted rehabilitation requests as follows: new construction, $2,053,314.56; additions or remodeling, $1,352,286; classroom equipment, $183,490.45; other rehabilitation, $2,849,466.82, making a total of $6,438,557.83.

All requests for new construction, classroom equipment, and additions or remodeling have been eliminated and only "other rehabilitation" requests have been accepted to the limit of the funds available.

HASTINGS ACQUIRES ATHLETIC FIELD AND PLAYGROUND

The board of education of Hastings-on-Hudson, N. Y., has completed plans for the acquisition of an athletic field and playground, which will provide an outdoor physical training program for elementary and high school students. A bond issue of $50,000 for the field has been approved. The new field will provide space for a running track, a baseball diamond, a football field, a hockey field, an archery course, and elementary school play space. The planning of the playground was carried out by a special committee, headed by Dixon A. Griswold.

SCHOOL BUILDING NEWS

► Cordell, Okla. The board of education has begun plans for a postwar building program, which is intended to eliminate two small grade schools. The proposed building will provide space for a cafeteria and a gymnasium.

Because the state law does not permit a bond large enough for building needs, it is planned to vote a 5-mill building levy, to assist in the financing of the project.

► Garfield Heights, Ohio. The Alumni Association of Garfield Heights High School has requested permission to erect a $1,000 war memorial on the athletic field, to take the form of a ticket booth. The Teachers' Association has requested the board to recognize the extra work performed by department heads in the high school, amounting to an average of 20 hours each month more than other teachers perform, by paying these department heads extra money for extra work.

► The Cleveland, Ohio, board has approved the building of additions to four schools. The addition to Jane Addams Vocational School was deferred, and the addition may be considered in connection with the new $2,250,000 trade school. Proposal has been made by President Wulff to add a unit for girls to the new trade school which, if adopted, will cost another $1,000,000, and the trade school will be a coed institution, eliminating the addition to Jane Addams. Business Manager Brown has declared for simple, dignified, and functional school buildings in the new program, putting an end to "fancy and monumental buildings of the past era.

"The new structures, the first postwar buildings in the reconversion period, reflect the thinking of the business department that simplicity, dignity, and utility should go into the school of 1946. The day of the monumental school is over," Mr. Brown contends. "It was beautiful in the eyes of the architect, who, with a lot of pens and paper, designed it, but it has no place in our system today. Compare these new buildings and the plans we have for Central Junior High School, with the John Hay High School built in 1929 with a lot of frills and useless decoration, stuff that has no place in the efficient high school today."

He mentioned two other well-known schools in the Cleveland system which were "full of gimcracks" which have no meaning now.

► Shawnee, Okla. The school board has sold to a Shawnee bank a $245,000 school-bond issue. The proceeds of the bond issue will be used for a new high school building. The sale was at an interest cost of 88/100 of 1 per cent, said to be the lowest rate on a bond issue sale in Pottawatomine County.

School Finance and Taxation

MUNICIPAL FINANCES

Municipal finances which are in excellent condition are likely to be very much reduced in the near future, according to opinions expressed at the Municipal Finance Officers' Convention, held in Richmond about the middle of June. The present condition of the treasuries is certain to be changed when spending can be resumed for new construction, for reconditioning run-down facilities, and for wage increases. The schools are in substantially the same situation as the municipalities.

FINANCE AND TAXATION

► The Bibb County school board at Macon, Ga., has adopted a school budget of $1,046,092 for the school year 1946–47, which is an increase of $151,181.

► Beloit, Wis. The school board has voted to place rent income from properties now owned by the board on the new high school site in a segregated sinking fund. The rents, which will total $425, will be designated for the purchase of equipment for the new school.

► Odessa, Tex. The school board has adopted a budget of $724,402 for the year 1946–47, which is an increase of $155,984 over the past year.

► Lincoln, Neb. The board of education has adopted a tentative budget of $2,041,325 for the school year 1946–47. The board has again set aside $50,000 to be added to the cumulative building fund.

► Montclair, N. J. In addition to regular budget items for building repairs and equipment, the board has authorized a school-bond issue of $306,000 for these purposes.

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Teachers' Salaries

SHREWSBURY SALARY SCHEDULE

The school board of Shrewsbury, Mass., has adopted a salary schedule for the teaching staff, which sets the base pay only and becomes effective on September 1, 1946. Under the schedule, all teachers are classified on the basis of their professional training and the possession of degrees. Teachers without any degrees will begin at $1,300, and will be given increases of $100 per year up to the maximum of $1,700 in the fifth year of service, and a supermaximum of $1,900 at the end of the seventh year. Teachers having four years' training and holding a bachelor's degree will start at $1,400, and will receive increases of $100 per year up to a maximum of $2,000 in the seventh year of service, and to $2,200 in the ninth year. Those with five years' training or more and holding a master's degree will begin at $1,600 and will be paid increases of $100 per year up to a maximum of $2,200 and $2,400 in the ninth year of service.

Principals of elementary schools will receive additional pay ranging from $100 to $500. The principal of the high school will receive $800 additional. Heads of departments in the six divisions of the school department will receive an additional allowance of $200, and supervisors of five special subjects will be given allowances ranging from $300 to $400.

Under the rules, teachers who have taught in the schools less than three years and who served in the armed services during World War II are subject to the same rules regarding increments as other teachers beginning in September, 1948.

All courses taken to receive credit for advancement, including credit for advancement to the supermaximum, must be approved by the superintendent, and written evidence must be presented to show the satisfactory completion of courses.

In order to continue receiving increments of $100 to the maximum salary, teachers must present evidence of the satisfactory completion of credit courses approved by the superintendent. No teacher may receive more than three increments of $100, unless he or she presents evidence of approved professional study amounting to five semester hours.

All teachers must present evidence of the completion of ten semester hours in order to advance from the maximum to step one of the supermaximum. Teachers must also show the satisfactory completion of ten semester hours to advance from step one to step two of the supermaximum. Teachers who reach the maximum or supermaximum salary are expected to improve themselves professionally by taking courses or by travel once every five years.

PERTH AMBOY SALARY GUIDE REVISED

The board of education of Perth Amboy, N. J., has revised its salary guide for the school year 1946–47. Maximums of salaries have been increased $300 for principals, supervisors, department heads, teachers, clerks, and janitors, except in the case of elementary teachers with less than two years' training where the maximum was raised $500. All school employees have been given salary increases of $300, of which $200 is for the school year 1946–47. The new maximum salaries are as follows:

Elementary teachers and teacher-clerks, with two years' training beyond high school, $3,000; three years' training, $3,000; and bachelor's degree or higher, $3,500.

High school teachers and teacher clerks, with less than four years' training, $3,100; bachelor's degree, $3,700; master's degree or higher, $3,950.

Heads of departments in high school $150 in excess of the salaries fixed for high school teachers under the guide

Vice-principal of high school, $4,200

Supervisors: bachelor's degree or higher, $4,100

Elementary principals: bachelor's degree, $4,300; master's degree, $4,500

Industrial-arts teachers: those with less than four years' training, $3,300; four years' training, $3,700; five years' training, $3,950

Clerks: maximum, $2,460

A SCHOOL BOND CAMPAIGN

(Concluded from page 36)

mental facilities, including additions to the police and fire departments, failed miserably.

Almost all members of the committee of citizens, together with many other workers, assembled at the superintendent's office to await the election returns. When success was assured, the chairman called a special meeting and the group decided to hold a victory dinner the following week — and more than 70 attended.

Thus ended a successful bond campaign planned by the school administration but conducted largely by the citizenry. One by-product was a welding together of the various sections of the community into a unit to work for a common cause, a feat that had not been accomplished previously.

The Texas Method of Lighting Schoolrooms gives: A STARTLING INCREASE IN EDUCATIONAL GROWTH . . .

PLUS . . . A Significant Reduction in Classroom Visual Difficulties and Energy Problems!

Your School can do it, too!

BEFORE

AFTER

It is not difficult to get the remarkable results Texas has in its experimental program for using light in schools.* This consists of proper painting of walls and ceilings with Luminall—the light-reflective paint and proper fenestration and seating arrangements. Here is a challenge to school authorities to find the way for their community to give greatly improved well-being and an amazing increase in educational growth to their school children.

Send today for descriptive literature. Address National Chemical & Mfg. Co., 3610 S. May Street, Chicago 10, Ill.

** Developed in the Mexia Texas Public Schools under the direction of D. B. Harmon and reported in—Illuminating Engineering; Architectural Record, etc.*

LUMINALL

the light-reflective paint for interiors

Cornerstone says "1924" Heating Results say "1946"

Home of Trenton Trust Co. Trenton, N.J.

Mercer County's Oldest Trust Organization.

Bank and 14-story office building erected 1924. Extension at left added 1939.

Twenty-two years of keeping up-to-date—that's the reason for the heating comfort and economy enjoyed by Trenton Trust Company.

Trenton Trust was founded in 1888—the same year Webster started serving steam-using customers. In 1924 when their present building was built it was provided with a Webster Heating System. Webster Sylphon Traps were installed on the 614 radiators and vacuum assured by a Nash Vacuum Pump.

In 1939 in order to give the entire building full advantage of newer developments, a 4-zone Webster Moderator System with balancing orifices and automatic control-by-the-weather was added.

Results in comfort and low cost have been outstanding. Repairs have been few, but promptly made when needed; maintenance has been regular; pressures kept low.

We solicit the opportunity to work with you in the same way we have worked with Trenton Trust.

WARREN WEBSTER & CO., Camden, N. J.
Representatives in principal U. S. Cities : : Est. 1888
In Canada: Darling Brothers, Limited, Montreal

In schools, too

Webster

HEATING SYSTEMS
provide the two essentials of true heating economy.

Personal News

► J. RALPH IRONS, formerly superintendent of schools at Evansville, Ind., has resigned. Mr. Irons is now employed in the office of the Veterans' administration in New York City.

► CHARLES F. MILLER, former state superintendent of public instruction for Illinois, died on June 12. He was 79.

► R. A. NEUWIEN, formerly principal of the Burdick Junior High School at Stamford, Conn., has accepted the position of assistant superintendent of schools. GLENN W. MOON will succeed Mr. Neuwien as principal.

► OWEN J. NEIGHBORS, for 30 years superintendent of schools at Wabash, Ind., has retired from school work. Mr. Neighbors was recently given the Distinguished Citizens' award by the Wabash Chamber of Commerce.

► MARK BILLS has accepted the superintendency at Flint, Mich., where he succeeds L. A. Pratt.

► DR. EHUD PRIESTLEY became superintendent of schools at Salem, N. J., on July 1, succeeding DR. GEORGE R. MILLER, JR., who has become state Commissioner of Education of Delaware.

► D. E. RAY, principal of the senior high school of Jackson, Tenn., for the past 16 years, has been elected superintendent of the Jackson city schools, succeeding C. B. Ijams, who retires after thirty years in the position. LOWELL W. CRANE, principal of the Rhea County Central High School, Dayton, Tenn., for the past two years, succeeds Principal Ray, effective August 16.

► CHARLES M. PATTERSON, director of guidance for the Bay Village, Ohio, schools, has been appointed associate principal in the Bay High School. He will continue to act as guidance director.

► B. GEORGE SALTZMAN, of Lawrence, Kans., has been elected superintendent at Brentwood, Mo., to succeed John E. Holman, resigned.

► EDWIN C. HENSEN, of Essexville, Mich., has accepted the superintendency at Carson City.

► CECIL JOHNSON, of Wymore, Neb., has been elected superintendent of schools at Belgrade.

► EUGENE L. RARICK, of Creighton, Neb., has taken the superintendency at West Point.

► A. N. ROGERS has been elected superintendent of schools at Ossian, Iowa, to succeed H. A. Littelle.

► LEON SMAAGE, of Brookfield, Ill., has been elected superintendent of schools at Des Plaines.

► E. R. SELLECK, of Des Plaines, Ill., has been named assistant superintendent in charge of special education at Sterling.

► LEE JOHNSON, of Wink, Tex., has accepted the superintendency at Phillips, where he succeeds Kenneth Kendricks.

► A. W. GRAVENS, of Galena, Ill., has accepted the superintendency at Morris.

► O. M. SWIHART, of Richmond, Ind., has taken the superintendency at Kokomo, where he succeeds C. V. Haworth.

► JOHN OSTER has been elected superintendent of schools at New Lenox, Ill., to succeed Ernest Flotow.

► L. C. FERGUSON, of Adams, Neb., has accepted the superintendency at Stella.

► M. B. LEAVENGOOD, of Dallas, Iowa, has been elected superintendent of schools at Battle Creek, Iowa.

► CALVIN REED, of Lincoln, Neb., has been elected superintendent of schools at Cambridge.

► C. M. JOHNSON, of Fort Gibson, Okla., has been elected superintendent of schools at Weleetka.

► RAYMOND E. RICHARDS, of Trenton, Neb., has accepted the superintendency at Wakefield.

► LLOYD MCCANN has been elected superintendent of schools at Gurley, Neb.

► B. M. MILLER has been elected superintendent of schools at Monte Alto, Tex.

► G. C. BRADLEY, of Reading, Mich., has been elected superintendent of schools at Milan.

► GUY ROBBERSON, of Elk City, Okla., has been elected superintendent of schools at Hydro, to succeed Quay Smith.

► CHARLES S. WISEHART, of Pendleton, Ind., has been elected superintendent of schools at Middlebury.

► WILLIAM J. SHARON, of Daggett, Mich., has been elected superintendent of schools at Powers-Spalding.

► MARVIN LARSON, of Vermillion, S. Dak., has been elected superintendent of schools at Irene.

► D. W. GITHENS, of Crawfordsville, Iowa, has accepted the superintendency at Winfield, to succeed G. G. Bellamy.

► GEORGE H. VAN DENBOS, of Erwin, S. Dak., has been elected superintendent of schools at White.

► HOWARD B. MENNES, of Stoughton, Wis., has accepted the superintendency, at Neenah, where he succeeds C. F. Hedges.

► J. ALLEN CAMPBELL, of Richmond, Ind., has accepted the superintendency at Sullivan.

► BEN H. WATT, of Noblesville, Ind., has been named state superintendent of public instruction.

► KARL E. GAYLORD, of Atlantic, Iowa, has been elected superintendent of schools at Manson.

► FRED P. REAGLE, assistant superintendent and director of industrial education at Montclair, N. J., retired at the close of the school year, after the completion of forty years' service to the schools. His duties included business management. BERNARD E. LAVIGNE succeeds Mr. Reagle in the office of assistant superintendent at Montclair. GEORGE E. HEDDY has been elected secretary of the board of education at Montclair, N. J.

► J. M. WRIGHT, of Oxford Junction, Iowa, has been elected superintendent of schools at Fertile.

► H. C. DEKOCK, of Cincinnati, Ohio, has accepted the superintendency at Tipton, Ohio, where he succeeds H. K. Bennett.

► LOREN E. HANCUFF, of Holton, Kans., has been elected superintendent at Wilcox.

► T. ERWIN KELLY, of Orland, Ill., has accepted a position in the office of the county superintendent.

► DONALD PHILLIPS, first assistant in music assigned to the office of President Andrew G. Clauson, Jr., of the New York City board of education, has resigned to become superintendent of schools in Rutland, Vt. Mr. Phillips had served in Clauson's office since the latter's election as head of the school board in May last. Prior to that, he was attached to the office of Associate Supt. N. L. Engelhardt, head of the Division of Housing and Business Administration.

► DR. WILLIAM H. LEMMEL, formerly superintendent of schools at Wilmington, Del., has taken over the superintendency of the Baltimore, Md., schools.

► HENRY E. SHERMAN, of Bradley, S. Dak., has accepted the superintendency at Bison.

► SUPT. FRANK C. RODA, of Ogdensburg, N. Y., has been re-elected for a five-year term. Mr. Roda has already served seven years as head of the schools.

► STEVEN N. WATKINS, of Sheldon, Iowa, has accepted the superintendency at Ames, where he succeeds M. T. Nodland.

► CARSTEN T. JOHNSTEN, of New Hampton, Iowa, has been elected superintendent at Hudson, to succeed R. L. Burch.

► MAX R. CLARK, of Sac City, Iowa, has been elected superintendent of schools at Dubuque, to succeed Jordan L. Larson. Mr. Clark, a graduate of the Iowa State Teachers College in 1931, received his master of arts degree from the State University in 1936, and took graduate work in administration at the State University in 1944.

NEWS OF SCHOOL OFFICIALS

► The Monroe County school board at Forsyth, Ga., has reorganized with J. E. ABERCROMBIE as president.

► The school board at Eau Claire, Wis., has reorganized with W. R. MANZ as president, and SAM WALKER as vice-president.

► The school board at Baxley, Ga., has reorganized with DR. H. H. OWENS as president, and T. H. WEATHERLY as vice-president.

► The school board at Taylor, Tex., has elected J. H. MILES as president, and RAY P. LEWIS as vice-president.

► HARLOW G. SHANNON has been elected president of the school board at Niles, Mich. Other officers are MRS. JACK F. YOUNG, vice-president; J. WALTER WOOD, secretary; JOHN R. SCAMEHORN, treasurer.

► The school board at Lawrenceburg, Ky., has reorganized with DR. T. H. POSEY as treasurer.

► The board of education of Claymont, Del., has reorganized with ALAN T. KNIGHT as president; MELVIN A. DIETRICH as vice-president; and H. E. STAHL as secretary. The other members are JOHN E. BANKS and MILLARD A. PINNEY.

► The school board at Kingfisher, Okla., has reorganized with EARL WALTON as president; FLOYD HAWS as vice-president; and W. H. FINK as clerk.

► The school board of Hillsboro, Tex., has reorganized with HERMAN EASTLAND, JR., as president; R. W. CALVERT as vice-president; and E. B. KEETON as secretary. MRS. E. D. BEARD is the new member of the board.

► OTTO C. KEIL has been re-elected president of the school board at Decatur, Ill. W. R. MCINTOSH has been named school clerk. FRANK WALKER is a new member of the board.

► The school board at Hartford, Wis., has reorganized with A. L. KISSEL as president; C. W. Rattray as clerk; and H. U. AMIDON as treasurer.

► ARNOLD GESSERT has resigned as president of the school board at Edgerton, Wis., after 12 years' service.

► The school board at Hartland, Wis., has reorganized with CHARLES WITTENBERG as president; MRS. E. DONALD RALPH as secretary; and S. CLARKE MILLER as treasurer.

► MRS. CLARA E. GLOVER, for 27 years a member of the school board of Avon, Mass., has been honored by the members of the board with an engraved certificate in appreciation of her long years of service. Mrs. Glover served a number of years as chairman and prior to her resignation in 1945 had been secretary of the joint school board of Avon, Holbrook, and Randolph.

► SUPT. P. H. HOPKINS, of Somerset, Ky., has been appointed a member of the State Textbook Commission for a four-year term.

► T. C. BIRD is the new superintendent of schools at Santa Fe, N. Mex.

THE MOST VERSATILE OF ALL BUILDING MATERIALS...

Alcoa Aluminum

Ever think of aluminum in this way? Surprising but true—Alcoa Aluminum is the most versatile of all building materials. What you can do with other metals you can often do better with aluminum—plus the fact—its light weight, durability and economy often recommends its use in place of nonmetallic materials.

There are over 212 ways you can use aluminum in building construction—and each with distinctive advantages. ALUMINUM COMPANY OF AMERICA, 1733 Gulf Building, Pittsburgh 19, Pennsylvania.

Aluminum entrance doors reduce maintenance. Can't rust or warp.

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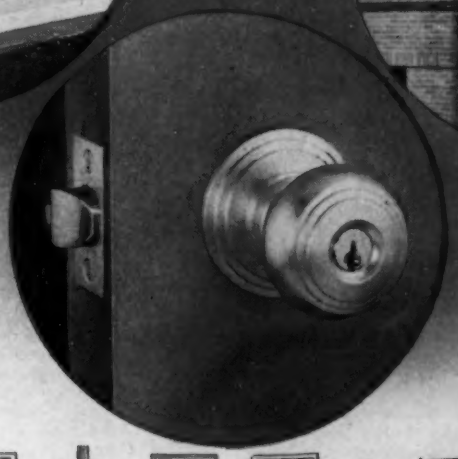
Aluminum sidewalk doors are light in weight—easy to operate. Highly resistant to corrosion—need no paint.

Aluminum roofing looks and lasts "like a million". It can't rust or rot—needs no paint.



Aluminum hardware can't rust—can't stain. Distinctive in appearance—modern as tomorrow.

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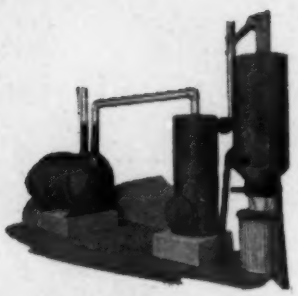
"PAY DIRT" IN SCHOOLS



The vacuum producer and dirt container are located in the basement. Piping connects to convenient inlets all over the building.

Dirt and dust can be very expensive if not promptly removed. It endangers health, destroys books, decorations and equipment and lowers the morale of the students.

The real "Pay dirt" is that extra ounce or pound that is extracted every day with the Spencer Central Cleaning System.

It saves time, gets more of the dirt, and because it lasts a lifetime with low maintenance, it costs less in the long run.

Also cleans chalk trays, gymnasiums, radiators, boilers, filters, projectors and a dozen other hard-to-clean spots quickly and easily.

Leading architects and educators endorse it. Ask for the Bulletins.

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Publications for School Business Executives

PROCEEDINGS OF THE NINETEENTH CONVENTION, C.A.P.S.B.O.

Paper. Issued by the Association. D. Lloyd Nelson, secretary, County Supt.'s office, Los Angeles, Calif.

California school-business executives need not boast about their state association: the studies and annual reports of the convention of the state association speak loudly of professional men tackling and solving numerous problems of school finance, building construction and maintenance, purchasing, budgeting and accounting, insurance. The recent nineteenth convention made clear that these school-business officials think first in terms of educational outcomes and that their approach to the business aspects of city and town school administration is on a highly professional plane.

School Building Survey of Haverford, Pa.

Paper, 50 pp. Published by the board of education of Haverford Township, Haverford, Pa.

This report, directed by three experts from the University of Pennsylvania, embraces five major aspects of the building situation and the immediate school plant needs of the Haverford Township School District.

Chapter I discusses on the basis of available documents, the present program and the instructional policies of the township. Chapter II discusses the population trends in the township which has been growing at a stupendous rate and promises to continue this growth at a slightly reduced rate until at least 1960. Chapter III indicates that the mounting school enumeration is likely to increase in the years immediately ahead and that it will continue to increase at a high rate during the next 15 years. The need for additional classroom space will be further complicated by a shift in population to one rapidly growing neighborhood. Chapter IV makes clear that of a possible score of 1000, the present school plant is somewhat defective from the standpoint of sites and general service rooms, and altogether rates only slightly above average. The entire school plant should be modernized, the sites enlarged, and facilities for assembly, physical education, industrial arts, and fine arts should be added. Chapter V, devoted to the financial status of the district, attests to the fact that the township has ample financial capacity to tax and bond itself and to pay for the improved school plant. The report concludes with a series of recommendations including the remodeling of the present school plant, the erection of two elementary and of a junior high school building, and the issuance of bonds in the amount of $1,500,000.

Standards for Soaps and Other Detergents

Paper, 180 pp., $1.50. American Society for Testing Materials, Philadelphia, Pa.

This publication includes specifications and methods of analysis.

Paper Towels

By H. S. Burns, *et al.* Information sheet No. 8, National Association of Public School Business Officials, Kalamazoo, Mich.

This information sheet contains the esesntial data concerning the grading, desirable characteristics, sizes, etc., of paper towels. Minimum data for specifying and testing towels are included.

Campaigns for School Taxes

By Ward G. Reeder. Cloth, xii–112 pp., $2.20. The Macmillan Company, New York, N. Y.

Campaigns for increases in school taxes and for school-bond elections sometimes fail because the school boards and their executives have forgotten to apply the positive good-will building principles of public relations or have neglected some large areas of influence which the campaign group should have touched. The materials of school campaigns are almost invariably crude and lack the fine touches which commercial houses put into their press releases, their advertising, and their timing of the several steps in selling campaigns. The chief merit of the present small book lies in its inclusiveness, in the clear explanation of principles which must be observed in planning a campaign and bringing it to a conclusion. The examples of campaign advertisements and circulars are typical and suggestive. The references, which are not very recent, give proof of the need for the book.

High Spots in State School Legislation

Paper, 36 pp. Research Division, National Education Association, Washington 6, D. C.

This summary of state school legislation indicates that the legislatures of 1945 were largely concerned with teacher welfare, particularly increased salaries, retirement provisions, and similar welfare measures.

A Performance Test for Dishwashing Detergents

By Edward H. Mann and C. C. Ruchhoft. In Public Health Reports June 14, 1946. Vol. 61, No. 24, U. S. Public Health Service, Washington, D. C.

This study sets up a performance test of detergents to be used for cleansing dishes and utensils in dairies and restaurants. The test provides a practical and reliable method of placing dishwashing detergents upon a performance basis.

The Postwar Civil Service

Paper, 15 pp. National Civil Service League, New York 18, N. Y.

This annual report suggests three steps for maintaining a high standard in the postwar work of civil service employees: (1) There must be a raising of the ceiling for salaries in the executive and administrative positions in public departments. (2) The methods of recruiting and selecting public employees must be expedited, using the lessons in the experience of the war. (3) The patronage system must be eliminated so far as public servants in office are concerned so that they may be free of disturbing pressures from job hunters. The report also recommends extensive research in public personnel administration.

How to Read Statistics

By R. L. C. Butsch. Cloth, v–184 pp., $2.50. The Bruce Publishing Co., Milwaukee, Wis.

This book provides a survey of statistical principles and widely used statistical procedures. It is addressed particularly to educators and social workers but is of equal value to any professional or businessman who would apply the statistical method to any commercial or professional situation.

The author introduces the reader to technical terminology and to the mathematics of statistics by a rather simple and interesting method. The chapters on graphical representation, and the development of graphs for special purposes, are particularly clear and simple. The book will serve excellently as a teachers' college text for both teachers and prospective administrators.

Dictionary of Engineering and Machine-Shop Terms

By A. H. Sandy; revised by I. L. Berck. Cloth, 153 pages. Price, $2.75. Chemical Publishing Company, Brooklyn, N. Y.

This book provides a carefully defined list of nearly 1500 words used commonly by the practical machine-shop worker and the mechanical draftsman. It should be found of especial value in vocational and adult-education classes.

Here's what people in Your Community are Saying!
"... effectively tell the desirability and advantages of playing a band instrument."
"... band leaders and school administrators will be very much interested."

ABOUT THESE TWO VALUABLE BOOKS!

"... they certainly will do a great deal of real good."

"The movement which you have started is definitely a needed one."

"... of definite educational and constructive value to youth."

"... the comprehensiveness of their contents will stimulate interest in music activities from all angles."

"... they deserve the widest possible distribution."

"... both of these publications will be of material assistance in furthering the cause of music education."

● Your students, their parents and others in your community who are interested in school activities are reading and enjoying these two books. Thousands already have been mailed on request to students, parents, and to music educators and teachers! As a result, a new urge to "make music" is sweeping the country today, and many prospective "school musicians" in your area have their hearts set on joining the band and orchestra!

These Valuable Books FREE to School Administrators

Mail the coupon, or send a post-card request, and we'll rush your free, complimentary copies at once, postpaid and without obligation. We believe you'll agree, after reading them, that these two books are "... of definite educational and constructive value to youth," and consequently deserving of wide distribution among all school authorities.

● **"FUN AND POPULARITY THROUGH MUSIC"**
Emphasizing the many opportunities open to BOYS and GIRLS with Instrumental Music Training, for clean, wholesome fun, for travel and school honors, for financial and educational gain.

● **"MUSIC, THE EMOTIONAL OUTLET FOR YOUTH"**
Written expressly for PARENTS and EDUCATORS, as a dramatic presentation of how they can use instrumental music training to mold the character of youth.

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LINE OF STEEL FRAME SEATING BRINGS
New Beauty to Class Rooms
New Comfort to Pupils . . .

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"Classic" Chair Light Weight Steel Frame Easy to Move — Sturdy

We're proud of the graceful lines our designers have worked into our new "Classic" line of school seating. We believe the beauty of this light-weight, pressed steel frame seating will make classrooms considerably more attractive, as well as more efficient.

Notice the posture-fit, floating plywood back rests. They adjust automatically to give each pupil proper back support. The seats are also restful plywood and are designed for utmost comfort. Pupils will like Peabody Classic Seating because of the roominess and unusual comfort it provides.

NO. 202
"Classic" Steel Frame Movable Tablet Arm Chair — Roomy — Comfortable

NO. 201
"Classic" Steel Frame Movable Chair Desk Duo-Adjusting Top

All "Classic" Seating has sanitary foot closures that eliminate collection of dust and dirt.

THE PEABODY COMPANY NORTH MANCHESTER INDIANA

School Board News

AVIATION COURSE

► Salamanca, N. Y. Under the direction of Supt. Richard A. Jensen, an aviation course has been introduced in the senior high school. The course prepares high school students for the air age by offering instruction in civil air regulations, aerodynamics, engines, navigation and code, meteorology, and flight instruction. Nineteen students, including one girl, are enrolled.

The aviation course is one year in length, with daily classroom periods, and students are given one unit of Regents credit. Juniors and seniors, 16 years old, are eligible. Flight instruction is given at the local airport, during the last two periods of the afternoon, after school, and on Saturdays. All flying is dual, since no solo flying is permitted. Each pupil is insured and the cost of flight instruction is met by the board.

STUDENTS' AIR CLASSES START IN MARYLAND

Under the direction of regular air force reserve officers, a program has been started in Maryland which seeks to establish CAP cadet squadrons in the high schools of the state. Under the plan, boys and girls, 15 to 18 years of age, will be offered ground school and preflight training during the summer. A cadet group will be operated in connection with each of the CAP's squadrons, and air force reserve officers will give the instruction. The cadets will receive credit for courses completed. The Maryland wing will award flight scholarships worth $100 to five worthy students now enrolled. The money will enable many students to fly solo and log several hours of solo flying toward a private pilot's license. Additional scholarships will be awarded as funds become available.

ADULT EDUCATION FINANCED BY SPECIAL FUND

The adult education program of the St. Louis, Mo., public schools will be carried on as usual in 1946, despite a provision in the new constitution which bars the use of "ordinary school revenues" for this purpose.

Continuation of evening classes for adults and the veterans' training program has been made possible by a financial and legal stratagem, according to Secretary-Treasurer Mervyn E. Wiethaupt. Approximately $75,000 has been transferred from general funds to a special fund set aside for adult education. This is only a temporary expedient and cannot be used for the next school year beginning July 1, 1947.

INSTITUTE ON PUBLIC SCHOOL ADMINISTRATION HELD

An Institute on Public School Administration was held at the University of Washington, July 8–12 under the direction of Prof. Thomas R. Cole. The program gave special emphasis to current educational topics of particular interest to teachers and school administrators and the speakers were members of the faculty of the University of Washington. Two features of special interest were the panel of school-board members and superintendents and the panel of textbook publisher representatives.

SURPLUS SCHOOL PROPERTY

The U. S. Office of Education has just issued Surplus Property Memorandum No. 9, rescinding Memoranda Nos. 4 and 5, and outlining the new conditions under which surplus property can be obtained listed in WAA catalogs and notices of offering. School authorities are requested to send a declaration of intent to buy to their state educational agency for surplus property and to make their purchases on standard purchase order forms adopted by the state agencies. Eligible educational claimants are those who have been assigned a certification symbol under Educational Surplus Property Memorandum No. 2.

The state educational agency will tabulate all declarations of intent and advise WAA what quantities educational claimants desire to purchase. Allocations to educational claimants within the state will be made by the state educational agency. Purchase orders will then be sent to WAA who will fill the orders and ship.

Educational organizations seeking to purchase surplus property at spot and sight sales must provide their representatives with a letter of authorization containing the institution's certification symbol, etc. All documents which are commitments to purchase must contain a note indicating that an educational discount is claimed.

Copies of Memorandum No. 9 can be obtained from H. F. Alves, U. S. Office of Education, Washington, D. C., through the respective state educational agency for surplus property.

SCHOOL ACTIVITIES IMPROVED AT NELSONVILLE, OHIO

During the school year 1945–46 some notable curriculum improvements were effected in the public schools of Nelsonville, Ohio, under the personal direction of Donald W. Codding, superintendent of schools.

During the year the music program was expanded and improved. A band of 50 pieces was organized, with members drawn from grades 6 through 12. Ensemble groups have been formed and an excellent rating has been received in the district competition. Eight of the members were chosen to participate in the All State School Band at Cleveland on March 29. Instrumental instruction is offered in grades 4 through 12. Music ability tests have been given and a class in strings has been established from which an orchestra has developed.

A vocal music program has been established, including all elementary grades and the high school.

DE-NAZIFYING GERMAN SCHOOLS

(Concluded from page 33)

Seven such new libraries have been reopened during the past two months. In the central public library, of the 25 personnel screened, 11 were employed and 14 were dismissed. A total of 105,000 volumes of Nazi books have been segregated in the public library and stored in a special room inaccessible to the public. No books have been burned or destroyed. A total of 1200 books have been purchased from bookshops by the public library during the past two months.

Problems of German University Students

Conditions prevailing at German universities of Erlangen, Marburg, Goettingen — particularly in view of the recent happenings on the occasion of Pastor Niemoeller's visits — have been subject of party as well as private discussions.

A Kassel "above-party committee" recently discussed latest events at the University of Goettingen, which is attended to a large extent by Kassel students. The committee's views and findings were expressed in a four-party resolution which appeared in the "Hessische Nachrichten." It was stated that there are about 800 reserve officers and 300 former regular army officers among the students, who form the majority of the attendants. They do not hide their reactionary attitude and are trying to dominate the democratically thinking students. These elements may one day form the nucleus of another reactionary movement. The suggestion was made that the German administration determine how many doctors, lawyers, teachers, etc., it would be possible to place into jobs in the coming years, so that admittance of students to universities could be regulated accordingly. It was further pointed out that, generally speaking, democrats — who owing to their convictions had not been able to make much money during the past 12 years — are not today in as good a position to send their children to universities as are reactionary elements.

As every student costs the government about 3000 marks it was remarked that the democratic taxpayer could not be expected to finance his potential enemies, as the students of today will one day hold responsible positions and thus be able to influence Germany's fate.

It was pointed out that those people who have been in the army for the past six years can show a politically clean *Fragebogen*, but that does by no means prove their democratic thinking. It was agreed that to change the mind and attitude of former officers was a difficult task, and the immediate closing of all universities was recommended, unless the situation improved considerably. A warning was not considered of much use, as the students might resort to underground activities as a consequence and resume their stand at a later date. To avoid such a possibility each student and his family background should be carefully examined, and only reliable elements should be admitted.

The above discussion was concerned mainly with conditions prevailing at the University of Goettingen, but the impressions gained are confirmed by observations made by a leading social democratic educator during a brief visit to the university town of Marburg.

CHICAGO DEVELOPMENTS

Members of the Chicago board of education are not expected to resign, according to press statements of Mayor Edward F. Kelley. Their services will be needed to keep the schools in operation until a new board is selected from names recommended by a commission of educators. The statements were made following a public demand of a number of citizens' organizations that the Mayor compel the board to withdraw.

The executive board of the Council of Chicago Elementary Teachers, representing more than 4000 teachers on July 15, addressed letters to the Mayor and the City Common Council praising the board and urging that the board continue to serve.

SEAL-O-SAN MAKES OLD FLOORS

LOOK NEW

YOU'LL find real satisfaction in the *new, clean* appearance of your floors when you refinish with Seal-O-San.

You'll find the Seal O-San finish unmarred by dirty traffic lanes—unharmed by ink or chemicals. You'll see a protective finish that seldom needs scrubbing.

Because Seal-O-San penetrates deeper . . . fills all cracks . . . and covers the floor with a *tougher seal*, it keeps dirt from piercing the surface and getting a foothold. That's why a Seal-O-San finish looks new, looks clean—*longer.*

As an aid to sanitation and for better-looking classrooms, refinish *all* wood floors with Seal-O-San. Their beautiful, clean appearance will be a source of pride every time you view them.

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MR. MILLER APPOINTED

The Denver board of education has appointed Graham R. Miller, principal of the East High School, Denver, to succeed James J. Ball.

Mr. Miller is a graduate of the Colorado School of Mines and holds an advance degree from the Colorado A. and M. College at Fort Collins. He was an engineer before entering the field of education as principal of the trade school, and later of the East High School.

DR. C. H. JUDD DIES

Dr. Charles H. Judd, 73, retired chairman of the department of education at the University of Chicago, died July 18, at Santa Barbara, Calif., after an illness of several months.

He left Chicago in 1938 after 29 years of teaching, 27 of which he spent as head of the department. When he resigned he became director of research for the National Resources Committee at Washington, D. C., and later was director of the National Youth Administration student work program.

Dr. Judd was born in British India, of American parents, and came to the United States six years later. He was educated at Wesleyan, the University of Leipzig, and Yale University. He began his teaching career as an instructor at Wesleyan and later taught at New York University and the University of Cincinnati.

Dr. Judd was the author of many books on psychology and education trends in the United States. He was a former president of the North Central Association. He was a member of the American Council on Education and other organizations.

PERSONAL NEWS

► CLARENCE VANDERLINDEN, of Frankfort, Mich., has accepted the superintendency at Leslie.

► The board of education at Detroit, Mich., has reorganized with A. DOUGLAS JAMIESON as president, and MRS. LAURA F. OSBORN as vice-president.

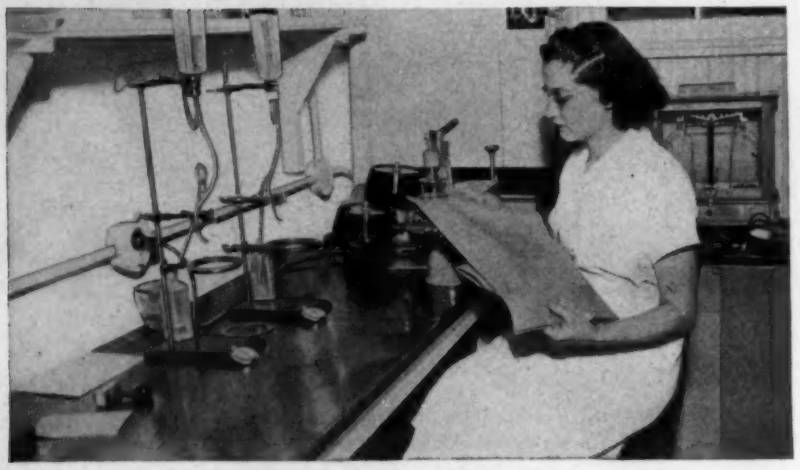
► MISS MARGARET CONWAY has been elected president of the school board at Milwaukee, Wis.

► CECIL A. BASKINS is the new president of the school board at Saginaw, Mich.

► The board of education at Pontiac, Mich., has reorganized with F. N. THIEFELS as president; DONALD C. PORRITT as vice-president; MONROE M. OSMUN as secretary; and VERNON SCHILLER as treasurer.

► JAMES J. BALL, for many years business manager of the Denver Board of education, has retired on pension.

Why You will Want Mosinee Towels In Your School Washrooms



The pure sulphate material from which Mosinee Towels are made is double checked for strength, weight and absorbency before it is converted into finished towels.

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THREE PRINCIPLES OF EFFICIENCY

(Concluded from page 18)

edge the organization member undertakes his work. These are the "limits" to rationality with which the principles of administration must deal.

On one side, the individual is limited by those skills, habits, and reflexes which are no longer in the realm of the conscious. His performance, for example, may be limited by his manual dexterity or his reaction time or his strength. His decision-making processes may be limited by the speed of his mental processes, his skill in elementary arithmetic, and so forth. In this area, the principles of administration must be concerned with the physiology of the human body and with the laws of skill training and of habit. This is the field that has been most successfully cultivated by the followers of Taylor and in which has been developed time-and-motion study and other techniques.

On a second side, the individual is limited by his values and those conceptions of purpose which influence him in making his decisions. If his loyalty to the organization is high, his decisions may evidence sincere acceptance of the objectives set for the organization; if that loyalty is lacking, personal motives may interfere with his administrative efficiency. If his loyalties are attached to the bureau by which he is employed, he may sometimes make decisions that are inimical to the larger unit of which the bureau is a part. In this area the principles of administration must be concerned with the determinants of loyalty and morale, with leadership and initiative, and with the influences that determine where the individual's organizational loyalties will be attached.

On a third side, the individual is limited by the extent of his knowledge of things relevant to his job. This applies both to the basic knowledge required in decision making — a bridge designer must know the fundamentals of mechanics — and to the information that is required to make his decisions appropriate to the given situation. In this area, administrative theory is concerned with such fundamental questions as these: What are the limits on the mass of knowledge that human minds can accumulate and apply? How rapidly can knowledge be assimilated? How is specialization in the administrative organization to be related to the specializations of knowledge that are prevalent in the community's occupational structure? How is the system of communication to channel knowledge and information to the appropriate decision points? What types of knowledge can, and what types cannot, be easily transmitted? How is the need for intercommunication of information affected by the modes of specialization in the organization? This is perhaps the *terra incognita* of administrative theory, and undoubtedly its careful exploration will cast great light on the proper application of the proverbs of administration.

Perhaps this triangle of limits does not completely bound the area of rationality, and other sides need to be added to the figure. In any case, this enumeration will serve to indicate the kinds of considerations that must go into the construction of valid and noncontradictory principles of administration.

DESIGN OF TRADE SCHOOLS

(Concluded from page 45)

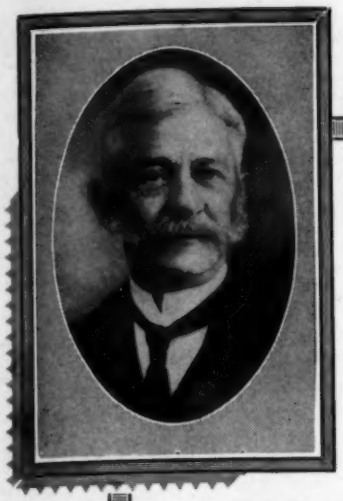
ments of facilities. Such matters are far beyond the scope of this article which has been intended only to touch upon many of the very important problems that will vitally affect the efficiency of the teaching in the building. If it has pointed the way to the practical solution of these problems for the many communities now face to face with them in their individual building programs, the writer will be more than gratified. Much depends upon the prompt, efficient solution of these problems, perhaps far more than we realize. Finally the time to solve them is when the building is in the planning and design stage — not while it is being turned into brick and mortar and steel — certainly not afterwards, with regrets and inconveniences and high operating costs.

READING IS FUN

(Concluded from page 46)

the writer has tried to help evinced no interest in trying to better his score. The rest manifested a marked desire to improve steadily. Gratifyingly enough, the results of performances on standardized reading tests usually show that definite improvement does follow a few months of practice under guidance.

The feeling of accomplishment that comes with the knowledge that pupils have been thus tangibly helped is one of the great compensations in teaching. One of the shining spots in the present writer's teaching career was this indirect tribute offered by one of his students whose reading level had been retarded more than five grades: "Why, reading is fun if you know how! I read five books during the past two weeks just because I wanted to and not because they were assigned."



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Sound-on-Film PROJECTORS

BECAUSE—you will quickly notice the unusual brilliancy of the pictures on the screen— the clear, true sound tones—the smooth, quiet operation of the Holmes machine. No eye or ear strain to see and hear with a Holmes.

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1812 ORCHARD ST. CHICAGO 14, ILL.

New Supplies and Equipment

Production, Service, and Sales News for School Buyers

POSTWAR TYPEWRITER

The first new postwar typewriter has just been introduced by Underwood Corporation, One Park Avenue, New York. Featuring "Rhythm Touch" and exemplifying a trend toward increased usefulness, rather than face-lifting changes, the new Underwood embodies more functional changes than any typewriter introduced by Underwood since it pioneered visible writing fifty years ago. Among the outstanding improvements is an accelerated type-bar action, providing the pleasing rhythm touch. There is a new rhythm shift for high speed, positive changing between small and capital letters, and a new ribbon action for accuracy, particularly when using a two color ribbon. The width of the keyboard has been increased for greater finger ease and security.

Underwood Corporation, 1 Park Avenue, New York 16, N. Y.

For brief reference use ASBJ—801.

DITTO TO BUILD NEW PLANT

Ditto, Incorporated, Chicago, manufacturers of duplicating machines and designers of Ditto business systems, have acquired property in Lincolnwood, Ill., consisting of some 28 acres, to provide for the company's immediate needs and future growth. Ditto presently occupies factories and warehouses at five locations in Chicago in addition to its sales offices in the Loop. Plans call for the constructon of a factory and multiple administration building as soon as building restrictions permit. Initial floor space will approximate 200,000 square feet with plans for expansion as required.

Ditto, Inc., Harrison & Oakley Blvd., Chicago 12, Ill.

For brief reference use ASBJ—802.

CLASSROOM LIGHTING

A case study in "Planned Classroom Lighting" is presented in an illustrated pamphlet showing good classroom lighting and typical classroom layouts.

Westinghouse Electric Corporation, Lighting Division, Edgewater Park, Cleveland, Ohio.

For brief reference use ASBJ—803.

BRANCH OFFICE CHANGES

The Herman Nelson Corporation, Moline, Ill., manufacturers of heating and ventilation products announce the opening of a new branch office in Pittsburgh with Gale Heslop in charge, as general product application engineer, and changes in branch office management as following: J. M. Osborne, general product application engineer, in charge of the Washington branch office; Coleman J. Kane in charge of the New York City branch office as general product application engineer. C. R. Anderson, formerly advertising manager, has joined the Philadelphia branch office as product application engineer, and W. M. Walterskirchen is the new product application engineer in Missoula, Mont.

Herman Nelson Corporation, Moline, Ill.

For brief reference use ASBJ—804.

PORTABLE AUDIOMETER

The wide usage of audiometric tests for measuring hearing loss has prompted demand for an efficient portable audiometer. To satisfy this demand the Western Electric Company has recently introduced a new unit called the 6BP Audiometer. Because the circuit features employed in its table model predecessor the 6B Audiometer have proved so satisfactory, these circuits have been embodied in the new design practically without change. However, the design for the portable unit provides greater utility, convenience, and ease of operation which also makes it preferable for schools.

The 6BP Audiometer, as designed by Bell Telephone Laboratories, is housed in a simulated leather-covered carrying case with recessed handle and a removable front cover.

Western Electric Company, Inc., 195 Broadway, New York 7, N. Y.

For brief reference use ASBJ—805.

MASS FEEDING INSTALLATIONS

A new, deluxe edition of "Case Histories of Successful Mass Feeding Installations," is now available. In 36 colored pages 28 case histories depict good kitchen design in institutions, hospitals, schools, industrial feeding, restaurants, and hotels. Illustrated with plans and installation photographs, and annotated with data on menus and services, this manual will be of value to superintendents, business managers, and school architects.

G. S. Blodgett Co., Inc., 50 Lakeside Avenue, Burlington, Vt.

For brief reference use ASBJ—806.

RCA EXPANDS 16MM. FACILITIES

RCA has increased its production facilities for 16mm. film equipment and transferred its activities in this field from the company's Indianapolis plant to Camdem, N. J. The company's program encompasses the production and marketing of a complete line of RCA 16mm. sound film projectors, styled to meet the needs of educational organizations. RCA will also sell a complete line of 16mm. accessories and auxiliary equipment.

Educational Department, Radio Corporation of America, RCA Victor Division, Camden, N. J.

For brief reference use ASBJ—807.

NEW SOUND FILMS IN COLOR

Eight new sound motion pictures for classroom use are announced by Coronet Instructional Films. These are:

THE NATURE OF COLOR — 1 reel (10 min.), color only. To explain the widely misunderstood subject of color, this film brings to the screen material never before attempted by motion picture photography. Designed primarily for use in physics and general science classes, it defines color as to the mental reactions to varying wave lengths of visible light.

MATTER AND ENERGY — 1 reel (10 min.), color and black and white. Directed to beginning students of science, this film presents the basic concept that everything in the universe is composed of matter and is effected by energy.

CATCHING FUNDAMENTALS — 1 reel (10 min.), color or black and white. The essential catching skills are presented as the film points out that the catcher is one of the most important members of a ball team and is responsible for co-ordinating team play.

SIMPLE STUNTS — 1 reel (10 min.), color or black and white. This film was produced to meet the expressed needs of physical instructors for material for group activities with boys or girls from intermediate through junior high grades.

HOW MAN MADE DAY — 1 reel (10 min.), color or black and white. Prepared under the supervision of Illa Podendorf of the University of Chicago Laboratory School, the film traces man's development of light from primitive to modern times.

SPELLING IS EASY — 1 reel (10 min.), color or black and white. This unusual film is the result of several months of research and experimentation in developing a practical visual aid on the subject of spelling.

MAPS ARE FUN — 1 reel (10 min.), color or black and white. This film, produced in collaboration with Viola Theman, Ph.D., assistant professor of education, Northwestern University, introduces the fundamental concepts of map reading.

All have been produced in natural color, with prints also available in black and white except for "The Nature of Color." Each film has been produced in collaboration with subject-matter specialists and teachers of the specific subjects, and has been checked by actual use in classroom before release.

Coronet Instructional Films, 919 N. Michigan Ave., Chicago 11, Ill.

For brief reference use ASBJ—808.

PROJECTION BOOK

"Secrets of Good Projection," contains valuable information for slide and motion picture film projectionists. It presents a discussion of projection problems and answers to questions on projection lenses, screen sizes, audience placement, and screen surfaces. A copy is available on request.

Radiant Mfg. Corp., 1144 West Superior St., Chicago 22, Ill.

For brief reference use ASBJ—809.

BAND AND ORCHESTRA HANDBOOK

In this 136 page book, published by the Pan American Band and Instrument Company, every important phase of instrumental music training in the educational program is presented. This book is meant to serve as a ready reference for many of the problems of a band or orchestra — why organize it, how to organize, finance, and maintain it, what types and respective quantities of instruments are necessary, how to conduct it, tips on marching and broadcasting — textual material that everyone with responsibility in instrumental music should have at his fingertips. Price $1.

Pan American Band Instrument Co., Elkhart, Ind.

For brief reference use ASBJ—810.

NEW FEDERAL PROCEDURES ON SURPLUS PROPERTY

The U. S. Office of Education has announced new procedures on the distribution of surplus property to schools, effective July 1, 1946.

Each state agency, under the new procedures, will be responsible for the certification of purchase orders or declarations of intent to buy. The state agency is also responsible for the allocation of property in short supply among educational institutions within a state to assure a fair and equitable distribution on the basis of need and utilization, and the giving of assistance to institutions in the acquisition of surplus property.

At the close of each offering period, the WAA will allocate available surplus among the states, local governments, educational, health, welfare, and other claimants of the same priority class. Allocations among states of the total surplus property for educational institutions will be made by representatives of the Office of Education, assisted by the state agencies.

Educational institutions desiring to purchase surplus property listed must send a declaration of intent, in triplicate, to the state agency. Each declaration must contain the name, location, and certification symbol of the institution, the file number of the notice of offering, a list of items, and the quantities desired, and a statement certifying that funds are available to purchase the property listed, at a 40 per cent discount from the "fair value."

PRESIDENT APPOINTS EDUCATION COMMISSION

President Truman, on July 13, appointed a National Commission on Higher Education composed of 30 of the nation's civic and educational leaders.

In the words of Mr. Truman, the commission will "re-examine our system of higher education in terms of its objectives, methods, and facilities; and in the light of the social role it has to play."

In announcing the apopintment, the President specifically called upon relevant federal agencies to co-operate with the commission. He designated Dr. John R. Steelman, director of War Mobilization and Reconversion, to serve as liaison officer between the commission and the executive agencies and to co-ordinate their work.

In his letter to the commission appointees, Mr. Truman wrote:

"As veterans return to college by the hundreds of thousands, the institutions of higher education face a period of trial which is taxing their resources and their resourcefulness to the utmost.

"The Federal Government is taking all practicable steps to assist the institutions to meet this challenge and to assure that all qualified veterans desirous of continuing their education have the opportunity to do so.

"Among the more specific questions with which I hope the commission will concern itself are: ways and means of expending educational opportunities for all able young people; the adequacy of curriculums, particularly in the fields of international affairs and social understanding; the desirability of establishing a series of intermediate technical institutes; the financial structure of higher education with particular reference to the requirements for the rapid expansion of physical facilities."

The commission includes such leaders as George F. Zook, Dr. Fred P. Kelley, Mrs. Eleanor Roosevelt, Ordway Tead, George D. Stoddard, and other leaders in higher education.

CALIFORNIA SCHOOL TRUSTEES WILL MEET IN SAN DIEGO

The California School Trustees Association will hold its 1946 convention in the U. S. Grant Hotel, in San Diego, September 29–October 2. On October 2 there will be a joint session with the superintendents of the state, who will hold their own convention in Coronado.

COMING CONVENTIONS

Sept. 19–21. New York State Association of District Superintendents, at Saranac Inn. Mrs. Pauline Bush, secretary, Horseheads, N. Y. Headquarters, Saranac Inn.

Sept. 29–Oct. 1. California School Trustees Association, at San Diego. Mrs. I. E. Porter, executive secretary. Room 6, Professional Bldg., Bakerfield. Headquarters, U. S. Grant Hotel.

October. Washington Education Association (division meetings). Secretary, Joe Chandler, 707 Lowman Bldg., Seattle 4, Wash. Oct. 4, Spokane; Oct. 7, Walla Walla; Oct. 8, Richland; Oct. 9, Yakima; Oct. 9, Sunnyside; Oct. 10, Wenatchee; Oct. 11, Seattle; Oct. 14, Bellingham; Oct. 15, Tacoma; Oct. 16, Centralia; Oct. 17, Vancouver; Oct. 18, Longview.

October. North Carolina Education Association (division meetings). Miss Ethel Perkins, Raleigh. Oct. 11, Asheville; Oct. 18, Charlotte; Oct. 25, Winston-Salem; Nov. 1, Durham; Nov. 8, Wilmington; Oct. 15, Greenville.

Oct. 7–11. National Safety Council, at Chicago, Ill. R. L. Forney, secretary, 20 West Wacker Dr., Chicago. Headquarters, Stevens Hotel. Exhibits, C. H. Miller.

Oct. 10–11. Central Missouri Teachers' Association, at Warrensburg. Dr. Wm. F. Knox, secretary, State College, Warrensburg. Headquarters, State College. Exhibits.

Oct. 10–12. Utah Education Association, at Salt Lake City. Milton B. Taylor, secretary, 316 Beneficial Life Bldg., Salt Lake City. Headquarters, Hotel Utah. Exhibits.

Oct. 14–17. National League to Promote School Attendance, at Baltimore, Md. Arthur G. Ramey, secretary, 108 Washington St., Cumberland, Md.

Oct. 21–22. School Broadcast Conference, at Chicago, Ill. Headquarters, Hotel Continental.

Oct. 23–25. Maine Teachers' Association, at Bangor, Me. Clyde Russell, secretary, 14 Western Ave., Augusta. Milford Payson, exhibits.

Oct. 23–25. North Dakota Education Association, at Fargo. Paul Dalager, secretary, Bismarck. Headquarters, Gardner Hotel.

Oct. 24–25. Colorado Education Association, at Denver, Grand Junction, Durango. Craig P. Minear, secretary, 230 Coronado Bldg., Denver 2, Colo.

Oct. 24–25. Indiana State Teachers' Association, at Indianapolis. Robert H. Tyatt, secretary, 203 Hotel Lincoln, Indianapolis 9, Ind. Headquarters, Hotel Lincoln.

Oct. 24. Indiana Vocational Association, at Indianapolis. Glen Barkes, secretary, School Administration Bldg., New Albany. Headquarters, Arsenal Technical School.

Oct. 24–26. Kentucky Association of Colleges and Secondary Schools, at Lexington. Dean Paul P. Boyd, secretary, University of Kentucky, Lexington. Headquarters, University of Kentucky.

Oct. 24–25. Minnesota Education Association, at Minneapolis. Walter E. Englund, secretary, 2429 University Ave., St. Paul 4, Minn. Headquarters, Municipal Auditorium.

Oct. 24–25. Rhode Island State Teachers' Association, at Providence. Miss Katherine M. Smith, secretary, 13 Geldard St., Valley Falls, R. I.

Oct. 24–26. Western Pennsylvania Education Conference, at Pittsburgh. A. M. Goldberger, secretary, University of Pittsburgh, Pittsburgh, Pa. Headquarters, University of Pittsburgh.

Oct. 27–29. New York State School Boards Association, at Syracuse. W. A. Clifford, secretary, 9 South Third St., Mount Vernon. Headquarters, Hotel Syracuse.

ASPHALT TILE STANDARDIZED

The National Bureau of Standards has prepared a simplified practice recommendation for asphalt tile to limit the sizes and colors of tile and cove base.

Copies of the recommended standards may be obtained from the Division of Simplified Practice, National Bureau of Standards, Washington 25, D. C.

Advertisers Products and Services

Advertisers in this index are given a code number in addition to the page number on which the advertisement appears. Refer to the advertisement for product or services available. Write direct to advertiser or use the coupon in requesting information from a number of advertisers.

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540 North Milwaukee St., Milwaukee 1, Wis.
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Practically indestructible — made of plastic impervious to acid in ink.

No parts to separate and become lost or broken — lid is hinged into body of inkwell.

No glass inset to break.

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eliminate breakage and replacement costs . . . .

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The guard holds the inkwell firmly in place and prevents it from being pushed out of the desk by books.

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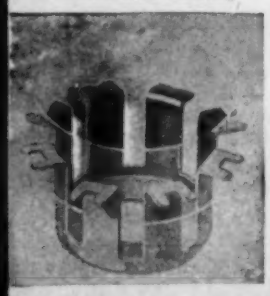

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The experience of hundreds of Sengbusch-equipped schools shows that Sengbusch Noiseless School Inkwells help solve your inkwell problems these three ways:

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2. They minimize ink evaporation, to cut down supply costs.
3. They eliminate annoying, costly ink-stain damage.

Sengbusch Noiseless School Inkwells are available in two styles designed to fit the majority of holes now in desks —for flush-type or protruding-type installations. Easy to install with or without guards. Easy to clean. No corrosion, deterioration, or crumbling.

Equip your desks with Sengbusch Noiseless School Inkwells. The worthwhile savings you enjoy back up your good judgment. Write today for descriptive price list.

Sengbusch Self-Closing Inkstand Co.
908 Sengbusch Bldg. Milwaukee 3, Wis.

8-1

For teachers' and office desks . . .

Sengbusch Handi-Pen Desk Sets

Everyone in your school system who writes — superintendents, principals, teachers, clerks—appreciates the effortless performance of Handi-Pen. You just pick it up and it writes. Uniform pen-inking. No flooding. No inky fingers. Less refilling — holds up to a year's supply of ink without evaporation waste. Attractive models from $3.00 to $12.00.

Write for free circular.

Acme SHEAR & SCISSORS TIPS

35 different finishing operations!

Yes, good shears get 35 *different* finishing operations at Acme! That's why they're the kind of shears that win purchasers' good will.

Made of quality materials, each pair of Acme shears must undergo eagle-eyed inspections *after every operation*...and they've got to be perfect to pass.

To make quality goods at low prices is something Acme has excelled in throughout its 70-year history. Today, Acme is looking ahead, ever seeking better ways to produce finer scissors and shears for all household and professional needs.

Give this line the consideration it deserves; that way you will benefit to the greatest extent as new Acme triumphs arrive.

Right now, Acme products include all popular models of Utility Shears, Sewing Scissors, Dressmakers' Shears, Kitchen Shears and others. They're all good cutters and do the job they're meant to do.

ACME SHEAR CO.

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